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TECHNIQUE IN SURGICAL AND GYNÆCOLOGICAL CASES.

By F. T. MERIWETHER, M.D., United States Army, Retired,
Asheville, N. C.

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AFTER years of dispute over the various modes of antiseptis, and the question raised whether antiseptics were of use or not, our ideas have been pretty thoroughly crystallized into this axiom; given a clean wound, a clean operator and assistants and clean or sterile instruments and dressings, a wound will not become infected and suppuration cannot take place. In the manner of obtaining clean wounds clean operators and assistants, and sterile dressings and instruments we have still a difference of opinion. All of us have seen operative cases in which no attempt was made towards either asepsis or antiseptis, get well without suppuration, but how many more are the cases in which suppuration occurs. I don't suppose there is a gentleman present to-night but what if asked if he believed in asepsis and antiseptis would answer in the affirmative. Yet how do some of us carry it out? I have seen some of your best men take instruments out of the cases, pass them through a weak

solution of carbolic acid and then proceed with the operation. I saw one gentleman operating upon a strangulated hernia; during the operation, and after it had proceeded thus far with fairly good cleanliness, take from his coat pocket a dirty sponge, rinse it a few times in a 1-2000 bichloride solution and then consider it clean—yet he got primary union.

Aseptic wound treatment applies to a fresh wound, antiseptic wound treatment to a wound already infected and to prevent the extension of this infection.

In this discussion for to-night I will only take up the subject of asepsis as applied to fresh wound treatment. I think every one admits that perfect cleanliness would be desirable, but so many physicians, in private practice particularly, think it impossible to carry out a systematic mode of asepsis, preferring to depend upon the antiseptic, usually, carbolic acid or the bichloride. The great objection to the use of the solutions is that one is apt to place too much dependence upon them and thus overlook the fact that they require for their action a very long time and that it is practically impossible to sterilize any thing with them during the short time we have preliminary to an operation. I believe that any physician, doing country work or not, may carry out to its fullest extent the sterilization of hands, instruments, etc., and thus enable him to get as good results in private practice as is obtained in the best equipped hospitals, that is in so far as our immediate efforts go, for I am not forgetful of the good results of hospital treatment and nursing. I will take the liberty of giving in brief some ideas and modes of carrying out an aseptic operation. While I know that some men will differ from me in many things, still I cannot but feel that, in view of the usual good results I get, I am justified in keeping on with my methods. In the first place let me say that I try to get along without the antiseptics, excepting heat of course, just as much as possible. They are irritating, speaking of the bichloride and carbolic acid more particularly, and in a measure favor suppuration by destroying the external layers of the cells, giving frequently a nidus for bacillar growth.

Preparation of patient. The day before an operation the patient is given a bath, the clothes are changed and a good dose of castor oil or sulphate of magnesia given to clean the bowels

out well. In cœliotomies I prefer giving the cathartic 48 hours before operation, giving a small dose the night before operation and using the enema the morning of the operation. The field of operation is shaved, scrubbed with green soap, wiped off with ether and covered with towels soaked in a bichloride solution 1-1000; being retained by a bandage or binder.

Preparations of instruments etc. All instruments except knives to be boiled at least ten minutes in a 1 per cent. solution of sodium bicarbonate, the dish in which they are boiled being covered. The knives should be dipped in alcohol, the blades covered with cotton and dropped into the dish with the other instruments three minutes before taking them off the stove or lamp upon which they are being boiled. They are then either placed in a tray and covered with sterilized water, care being taken not to touch them unless the hands have been previously sterilized, or else the soda solution is poured off and sterile water poured on them, using the same dish that they were boiled in as a tray. The soda solution makes the instruments very slippery so it should be changed for plain water. The tray or dish should then be covered with a sterile towel until ready for use. Dressings, towels and surgeon's aprons should be sterilized for at least half an hour in a good sterilizer. Arnold's sterilizer is a good efficient one for ordinary use and is cheap. Sponges should have been placed in a 1-1000 bichloride solution for 12 hours, unless cotton sponges are used, in which case I either sterilize in an Arnold's sterilizer or by means of boiling. Silk, silver wire and silk-worm gut sutures should be boiled for half an hour unless previously sterilized. Cat gut should be placed in pure alcohol for 12 hours if previously sterilized by any of the numerous methods of sterilization. I sterilize my own cat gut, though I use it now but seldom. I first soak it in ether 48 hours, then boil in alcohol, then place in alcohol bichloride 1-1000 for 48 hours and then in pure alcohol. This makes the gut quite tough and less absorbable than by other methods. Needles should be sterilized with the instruments or may be boiled with the silk sutures. All trays or bowls should be first scrubbed out and then scalded and if not of metal rinsed with a 1-1000 bichloride solution.

Preparations of surgeons and assistants. The hands and arms are first washed, then scrubbed thoroughly with green soap and a brush. Then stain to a dark walnut in a saturated solution of permanganate of potassium, decolorize in a saturated solution of oxalic acid, then soak in a 1-1000 bichloride solution for one or two minutes, then rinse off the bichloride in sterile water. The hands should not touch anything not sterile after this procedure; do not dry them on towels or pick up articles of furniture. The patient is gotten upon the table either before this process is gone through, or else by some one not necessarily sterile. The field of operation is now exposed by a nurse with clean, fresh washed hands, care being taken that she does not touch the skin. An assistant then scrubs the field with green soap, then rinses off with a 1-1000 bichloride solution, then with sterile water, and the space about the field covered with sterilized towels. After this ordinarily no antiseptic is used, except that it is well to have a bichloride solution ready in case that pus is met with and the hands are soiled. In this case they are soaked in this solution which is afterwards washed off in sterilized water. Assistants should be instructed not to touch anything not surgically clean. There is quite a temptation to feel the patients pulse but it should not be done or allowed. The sponges are removed from the bichloride and rinsed out in sterile water. The patient having been anesthetized, the instruments are uncovered and the operation begins. Sponges should be squeezed dry before using, and any pus or infectious material wiped up with a sponge or dry gauze, not washing it off for fear of dissemination.

Particular care should be taken not to allow the ends of sutures and ligatures to drag on patients clothes or other unsterile articles. Instruments dropped upon the floor or placed upon things non-sterile should not be again used. The final dressing should be made by washing the skin off with sterilized water, wiping with a sterile towel and using sterile gauze and cotton. This seems probably a lot of business and may have to be modified in some cases, but I think in the main may be carried out.

We can have at any house, boiling water, a fire and a certain number of bowls basins, towels, etc.; our dressings we can sterilize before going to the place of operation, and I do not find

it takes much extra time even in the country to carry these principles out thoroughly.

When I can anticipate any possible trouble in obtaining facilities for boiling my instruments I sterilize them before starting.

Ordinarily I carry with me, a flat dish for boiling my instruments, and two basins for my oxalic acid and permanganate solutions. This only requires two bowls or basins to be furnished by the patient, and if possible they should be new--of course a large number would be more convenient, but with two one can get along nicely, and in a pinch we could manage with one.

ANTI-DIPHThERITIC AND ANTI-STREPTOCOCCIC
SERUMS. THEIR NATURE, METHOD OF PRO-
DUCTION, AND APPLICATION FOR THE
RELIEF OF DISEASE.*

By C. C. FITE, M.D., New York.

THOSE of us who received our medical education long enough ago to be fond of retrospection will recall the ready acceptance which was given to the germ theory of disease, by the younger and more plastic minds in the scientific world when it was promulgated. We can also recall the doubt and ridicule that was heaped on the promoters of this theory by the over-wise and the ultra-conservative element.

It was my good fortune to witness the great Lister operate, and I noticed how his spray and apparatus excited the ridicule of these over-wise men who stood near; men who, by the way, have been forgotten, whilst Lister's name will live forever. Listerism, Pasteurism, antisepsis, asepsis, whatever name we may give to the methods then or since used, mean, after all, the same thing, namely, fighting noxious germs, killing the microbe

*Read before the Lycoming County Medical Society, Williamsport, Pa.,
December 1, 1896.

that is, either by its own destructive action or through poisonous secretions, destroying humanity. All we have attained to-day in serum therapy comes legitimately from the establishment of the germ theory of disease.

Acting upon the suggestion of your honored associate, and my very good friend Dr. B. H. Detwiler, this paper will be limited to the question of the proper method of producing and using substances to either kill or neutralize the effect of disease germs. The subject is too broad for a full treatise on all the various accomplishments in this direction, and I will therefore select two that appear most interesting. I refer to anti-diphtheritic and anti-streptococcic serums. The first has been accepted as a part of our legitimate and definite list of remedial agents. The second is still on trial.

As to the nature of anti-diphtheritic serum, I will state that the theory is a simple one. The diphtheritic germ, the Klebs-Loeffler bacillus, finds lodgment in the throat or elsewhere. It begins to grow and multiply, a membrane is formed, a poison is secreted and absorbed. This toxine overwhelms the life centers, paralysis and death may follow. Nature has in the meantime been endeavoring to overcome the danger that is threatening the patient, and has secreted an antitoxin to destroy the toxin.

Marvelous Mother nature gives the germ a life, but when the balance is apt to be against the culture field, the body, endeavors to neutralize the danger in her own mysterious way. This process was repeated millions of times for thousands of years, but we did not understand it, did not go deep enough into Nature's great laboratory. Finally the educational results of the germ theory had produced a long list of careful thinkers, and with that deep eye, the microscope, and by the aid of vivisection on animals, the secret was discovered, and now, all over the civilized world, are laboratories for the production of the precious fluid.

From Lister to Behring is a long step. It represents energies untold, deep thought beyond our grasp. Only a few years as time is calendared, but a stride so immense as to strike us with awe! When I first met Professor Klebs, the thought passed through my mind—Lister—Huxley—Darwin—Spencer—Koch—Behring—Klebs—guide-posts in the development of life!

I am indebted to Dr. E. M. Houghton of the Biological Laboratory of Parke, Davis & Company for the details of the method of manufacturing anti-diphtheritic serum. It is in brief as follows: First a culture medium is prepared by adding bouillon to blood serum, and then coagulating the mixture; this is known as Loeffler's blood serum. The diphtheria germs are secured by passing a sterile swab over the false membrane and the swab is then passed over the blood serum and the tube containing the now infected serum is closed with a cotton plug, and put into an incubator where it can be kept at the body temperature. After a few hours small colonies appear on the surface of the serum and the microscope is used to determine if the Klebs-Loeffler bacillus is present and if so, if it is free from other forms of life. If it is a pure culture, small colonies are picked out and transferred to fresh serum and replaced in the incubator.

These growing germs are the seed used for producing the toxin; they are planted in sterilized beef bouillon. The germs then grow rapidly, and produce or secrete toxins which are retained in the bouillon. A small amount of a preservative is added and it is then filtered through unglazed porcelain, which removes the germs and all foreign bodies, leaving the solution clear. This solution of toxin is then injected into the jugular vein of a horse and as Dr. Houghton puts it, "We must now stand aside and allow the remainder of the miracle to be wrought unseen."

The horse's blood now contains an antitoxin which destroys the toxin we have been putting in it. The dose is repeated until, in the course of a few months, a horse can stand without injury a dose several hundred times stronger than one that would have killed him at the beginning of the treatment. Our horse is then our laboratory, but Nature has yet kept her secret as to how the antitoxin is produced. All we have to do now is to secure the blood from our patient friend, remove the clot, filter, sterilize and preserve the serum, and we have the result, a package of anti-diphtheritic serum, and we are ready to go on our life-saving errand.

I have purposely avoided any reference to the various methods and tests applied on guinea pigs and with the microscope to determine the strength of the toxins and antitoxins from time to

time. The methods have been carefully worked out by those engaged actively in the work, and in this way they have been enabled to establish a fixed standard just as definitely as we could weigh any given drug with the scales. The method now generally in use is to make a given number of antitoxin units a dose, irrespective of the bulk.

I consider it of the utmost importance that the serum should be as highly concentrated as possible, hermetically sealed, and only one dose in a package, and it should not be opened until we are ready to use it. By being careful about this, and using a clean syringe, avoiding the large old-style antitoxin syringe with the rubber tube, we can be confident that no harm will come from its use. My opportunities for observing the use of anti diphtheritic serum and for conferring with eminent authorities as to its use have been quite extensive, and I have reached the conclusion above given and also that it is of the utmost importance to use the serum as early as possible and in full and repeated doses.

In recent conversations with Dr. Joseph Holt, Dr. W. P. Northrup, and Dr. Joseph O'Dwyer, they have referred pointedly to the necessity of full doses. In fact, I think it is legitimate to add that the majority of those who have not been successful in their use of antitoxin have either not used it in sufficient quantity or early enough. Dr. W. A. Walker (*Pediatrics*, October 15, 1896) places great stress on this point, as also does Dr. Douglas H. Stewart (*Annals of Gynecology and Pediatrics*, November, 1896).

Allow me to make a brief digression here and refer to the value of using the microscope in making a diagnosis. Dr. Wm. Osler kindly showed me a case of typhoid fever in his service at the Johns Hopkins Hospital which had a small patch of false membrane on the lower lip. Microscopical examination showed the Klebs-Loeffler bacilli in abundance. Now it is often doubtless true that the real nature of cases of this kind are overlooked, and they become the foci of infection, and the patch, even though small, may spread to other surfaces later on, after having been the means of infecting probably a number of people. Then we are sure to hear the cry raised about sporadic cases!

I would also ask you not to neglect other methods of local and general treatment; sustain the patient's strength, keep the bowels open with calomel and keep the throat clean. The Loeffler solution is an admirable combination of antiseptics for local use.

I will now refer to the cases of mixed infection and will ask your attention to the articles of Dr. Stewart and Dr. Walker above referred to; also to an editorial in the *Cincinnati Lancet-Clinic* of October 15, 1896, referring to the use of anti-streptococcic serum and quoting that eminent teacher Dr. J. Lewis Smith.

Marmorek and others have used anti-streptococcic serum in cases of diphtheria showing the streptococcus as well as the Klebs-Loeffler bacillus, also in scarlet fever, puerperal fever, general septicemias, infective tonsillitis, erysipelas, and other diseases, whether due to, or complicated by, the appearance of the streptococcus pyogenes, and it seems as if it will prove of great value in other cases, perhaps in multiple abscess and in bronchopneumonia, or in fact wherever the streptococcus is found as above stated. Dr. Henry Dwight Chapin has been giving some attention to its use in the two diseases last named.

In reference to its use in diphtheria, I am firmly convinced that it is indicated in all cases where the microscope shows the streptococcus and we almost invariably find it in cases which do not yield to the anti-diphtheritic serum and where we see a zone of inflammatory action extending beyond the area occupied by the true diphtheritic membrane. Therefore, if a case does not yield promptly to the anti-diphtheritic serum, we should, I believe, use the anti-streptococcic serum without waiting for the report from the bacteriologist.

The method of producing the anti-streptococcic serum is in the main a similar process to that used in the production of the anti-diphtheritic serum, or by injecting virulent cultures of the germs instead of the toxin.

I am indebted to Dr. Charles T. McClintock of Ann Arbor for advice in regard to this matter. Dr. McClintock writes as follows: "As regards the difference in methods for producing anti-diphtheritic and anti-streptococcic serum, I may say in general that the streptococci, like a number of other germs,

does not readily give off its toxin to the surrounding liquid. If you want to get the toxic properties of the germ, you must take its own protoplasm. On this account we are compelled to use the germs themselves, in order to successfully immunize an animal. The filtered toxins are not very powerful. This is the essential difference between the two materials. In the case of the streptococcus we use a living virulent germ in bouillon culture."

I submitted the same question to Dr. Dillon Brown of New York, and he replied as follows: "To test the value of a streptococcus antitoxin we must not use the toxin; but the culture itself. The point is that in streptococcus infection, the germ itself finds its way into the blood and viscera, while in Klebs-Loeffler infection, the bacillus is rarely found in the viscera on autopsy. In one case, you have a toxin only to fight, and in the other, you have both the germ and its toxin."

There has been a great deal of good work done quite recently in this investigation of the anti-streptococcic serum and I feel confident that we are near a solution of the problem. The New York Board of Health is having it carefully studied in the Willard Parker Hospital and the great reputation and well-known ability of the scientific corps of this board and of the gentlemen composing the staff of the hospital is a sufficient guarantee that the work will be well done. The profession of this country owes much to Drs. Biggs, Park and Prudden.

In conclusion, allow me to say that the great lesson we may learn from the history of serum therapy, bearing upon scientific advancement, is that we should keep our minds open to receive testimony and look forward, not backward. We are at the beginning only of a great era in medicine. Medicine is partly a science, partly an art. The laboratory worker and the student are scientific producers of the colors which the practitioner, the artist, puts on the canvas. If we work together, the one investigating and producing, the other investigating and using, we make more rapid strides, get quicker results, and mutual confidence produces mutual good-will and a cheerful exchange of ideas of advantage to all,

Selected Papers.

BEST METHODS OF EXAMINING SICK CHILDREN, WITH A CONSIDERATION OF SOME OB- SCURE OR RARE MALADIES.

By J. LEWIS SMITH, M.D., of New York, Visiting Physician to
the New York Foundling Asylum.

THE examination of children in sickness is surrounded with difficulties which do not occur when the patient is of a more advanced age. The young child cannot describe its suffering, or tell us the seat of its disease; many of its ailments are peculiar, are more concealed, and require more time for investigation and exact diagnosis than the maladies of later life. Therefore, the physician who wishes to excel as a pediatricist must not expect to make a brief visit when summoned to a case, but must remain long enough to learn all the essential details of the malady. Upon visiting a sick child he should enter the nursery quietly, preceded by the mother or nurse, and taking a seat at a distance from the patient, and without appearing to notice him, should learn its history and the particulars of its sickness. With the information thus obtained, and a careful observation of the symptoms, so far as they can be observed at a distance, the experienced physician can often make a diagnosis, which a closer examination shows to be correct. In some instances this distant examination gives a more accurate idea of the nature of the malady than is to be obtained by a closer inspection. The pain of an otitis media is indicated by the infant carrying its finger to the ear, but it does not do this if frightened by the near presence of a stranger.

Attempts to amuse a sick child are always proper, and the physician should endeavor to accommodate himself to the degree of mental development of his patient. The child should feel that he has a friend and playmate in the doctor, and he will then act in a more natural manner, and with less concealment. In my practice, the percussion-hammer, and the prescription-paper

and pencil, used for amusing the patient, often divert his attention from his sickness, and by this occupation of his mind his symptoms usually become more manifest. One of the most distinguished pediatricists in America has a soft, melodious chime connected with his watch, and this attracts and delights the little patient, if he be not in too much pain, and he submits more readily to an examination. Force should never be used except in the case of the restraint necessary for the inspection of the fauces. A physician who endeavors to overcome the dread and resistance of a sick child by threats and scolding will never be successful in treating children. After the history has been ascertained (which should include the age, mode of feeding, previous diseases, and in some cases, the health of the parents, together with the symptoms, manner of commencement, and duration of the present sickness), the physician is prepared to approach the patient. No physician need be told how important it is to ascertain the temperature, but in an emotional child, excitement, as that produced by fright, may cause such a sudden increase as may prove misleading. The following case is an example of this:

A female child in its second year, wetnursed by its mother in New York Infant Asylum, during my visits in 1894, and carefully attended by the resident physicians, Drs. A. and E. Parry, had a mild intestinal catarrh, which did not, however, appreciably affect the temperature. The infant was extremely emotional. The sudden entrance of a stranger, or his attempts to hold it, or the slamming of a door, would cause high and transientelevations of temperature, reaching from 106° to 107°F.

A physician examining a case of this kind would probably make an error in diagnosis, if he did not remain long enough to witness the decline in the fever. Instances of such great variations in temperature from the emotions are not common, that but they do occur should be borne in mind. A young musician of this city immediately before he appeared upon the stage always had a temperature of 102°F.; at other times it was normal. A resident physician of the Charity, now City, Hospital, at one time had a dangerous attack of typhoid fever, by which he was much reduced. The fever finally disappeared, and he began to convalesce, when some friends presented him with a gold watch.

The gift took him by surprise and his emotion was so great that it caused his temperature to rise to 103°F.

To prevent any possible aberration from fright or excitement, it is better that the temperature of a child be ascertained by the mother or nurse before the approach of the physician.

During my long service as one of the physicians to the New York Foundling Asylum I have attended many infants for whom breast-milk could not be obtained. Most of these children had been left at the Asylum doors, and were under the age of two months, and many under one month. There being a large maternity service in this institution, the breast-milk was obtained in as many instances as possible, and those infants receiving it, as might be expected, did better than the bottle-fed babies. The death-rate of the latter was always large, and the most certain sign of the near approach of death was the occurrence of a subnormal temperature. The fall of temperature, at first slight, gradually increased, and when it had descended to 96°F. death uniformly occurred in two or three days, notwithstanding active stimulation. In weak and wasted infants suffering from malnutrition, therefore, a persistent subnormal temperature must be regarded as a very unfavorable prognostic sign.

No one need be told of the importance of observing the presence of abnormalities in the state of the eyes. Dilatation, inequality and sluggish movements of the pupils, oscillation, and strabismus, occurring during the course of an illness, are unfavorable diagnostic signs, since they are indicative of cerebral disease.

Rachitis I find, in its early stages, is often overlooked or wrongly diagnosticated. The late Professor Henech, of Berlin, has said that rachitis has increased enormously of late in the cities of central and northern Europe; I have found it common in its worst form in Italian immigrants and American negroes, and this is probably due to the poor diet and the unsanitary condition in which they live. I attribute the large increase of rachitis in this country partly to the pauper immigration, and partly to the extensive use of proprietary foods, without any, or with too little, milk. I have examined the composition of thirteen of the commercial foods, and I find that nine of the thirteen contain less than one per cent. of cream. It is suffi-

cient for the present purpose to draw attention to the increasing frequency of rachitis in America, either as a complicating or primary disease, believing that if the fact of its frequency were generally known, the error of a mistaken diagnosis, in its early stages, would be less common.

In diseases attended by emaciation the brain wastes in the same manner as other parts of the system, and if the sutures and fontanels are not closed, and the cranial bones are thus movable, the frontal and occipital bones are depressed and overridden by the parietal. This fact has led to serious mistakes in diagnosis. With the exception of those abnormalities in the shape and development of the cranium, which result from, and pertain to, rachitis, all will agree that in following the advice given by Rilliet and Barthez to "study cerebral symptoms with care," the anterior fontanel will require more attention than any other part of the cranial arch. We all know the significance of a tense and elevated fontanel, occurring without premonition, but attended by fever, and not abating when cool applications are made to the head. In infants in previous ill health, who are much emaciated, the brain, as has been said, participates in the general waste, and if tubercular meningitis, which is not uncommon, occur, with considerable increase of the cerebrospinal fluid, this increase, as I have observed, does not equal the waste, and the fontanel remains depressed. This fact should be borne in mind to prevent error in diagnosis.

Cases are by means rare in which faucial inflammations of a grave nature are overlooked in their beginning. Mothers, and sometimes physicians, have informed me that the symptoms of the case under examination did not indicate any involvement of the fauces, when inspection revealed the presence of disease which urgently required treatment. A nasal discharge (though slight), huskiness, or other change in the voice from the normal, or an occasional cough, should direct attention to the fauces and lead to their examination. The physician will never regret that he has made this inspection, and often the whole line of treatment will be changed. Without such examination, I have known malignant diphtheria to be mistaken for mumps, and mild diphtheria, with but little tenderness and swelling, to escape notice entirely. Inflammation of the air-passages in

infancy and childhood is in many instances trivial, and soon begins to abate, but in a severe form is dangerous, and even fatal; and, from its frequency, it requires a careful examination before diagnostic and prognostic opinions are expressed. Infantile bronchitis, in its commencement, though confined to the larger tubes, if attended by restlessness and fever, should not be made light of. The inflammation is probably pursuing a downward course. Bronchopneumonia is especially a disease of infancy. Unlike the adult pneumonia, it is seldom accompanied by the brick-dust sputum, and bronchitis being a prominent element, a cough is frequent from beginning to end. In this respect it is unlike pleurisy, which, even in the purulent form, sometimes never gives rise to cough during the entire course of the disease. There are other diseases of the pulmonary and circulatory systems in children which are interesting, and which should be carefully considered before a diagnosis is made, but we must pass them by.

One disease I have not infrequently observed in ill-fed and anemic children, as well as in adults. There is tenderness and dull pain, increased by pressure, over a certain area, whether upon the forehead, face, chest, abdomen, or elsewhere. Pressure along the spine and over the rootlets of the nerves which supply the affected part is not only painful at the point of pressure, but it intensifies the habitual pain from which the patient suffers. It has been variously designated as spinal affection, spinal irritation, hyperesthesia, etc. The late Professor Austin Flint was among the first to direct attention to this disease. In 1844 he published a statistical paper descriptive of what he called "the spinal affection," and in his classical treatise on the "Principles and Practice of Medicine," 1886, he designated it "spinal irritation." To my knowledge, this malady is often mistaken for chronic indigestion, gastro-intestinal catarrh, or subacute pleurisy, and if the patient be treated according to one of these diagnoses, he is certain to be made worse. The symptoms of "spinal irritation" and vertebral caries are, in some cases, very similar, but it is not difficult to distinguish one from the other if the mode of examination given in orthopedic treatises is carried out. Dr. Flint once told me that when in Paris he attended the clinic of a distinguished physician, whose

name is favorably known in both hemispheres, and a case of abdominal tenderness was presented. After an examination, the professor diagnosticated the condition as peritonitis, and courteously allowed him to examine the patient. Pressure upon the spine elicited pain, which was felt not only along the spine, but over the abdomen. Flint recognized the disease which he had studied so carefully, and expressed the opinion that it was of nervous origin, resulting from anemia, and was not inflammatory—an opinion in which the distinguished clinical teacher concurred after further examination. When we consider that this mistake in diagnosis was made by a physician of great renown, and if not rectified would have led to improper treatment, how important it is that the statistical monograph written by Austin Flint fifty-two years ago should be carefully perused, and the facts which he forcibly presents be impressed upon the memory!

Another disease, the early diagnosis of which is not difficult, is intestinal intussusception. In a considerable proportion of these cases the displacement is not diagnosticated until the chances of recovery are slight. In many patients the invagination takes place by the prolapse of the lower part of the ileum through the ileocecal orifice. This causes swelling and hardness, which may be mistaken for appendicitis. The diagnosis of intussusception is, I think, not difficult, for in whatever part of the intestinal tract it is located, the occlusion is usually so complete that, after the rectum is once washed out, only blood, or blood with mucus, escapes from the invaginated gut. This character of the discharge differentiates the condition from appendicitis, which is not attended by bloody evacuations.

I have heard it stated by some of the oldest physicians of New York that during their entire professional life they have from time to time been summoned to attend children, even as young as two or three years, who have had a fever, which, through want of accurate knowledge of its nature, they have designated malarial. The younger physicians, following their seniors, have adopted the same nomenclature, and, though a false designation, it is likely to be perpetuated. This fever, as I have observed it year after year, occurs during any season, but appears to be most frequent in the autumnal months. Ordin-

arily it comes on gradually, with malaise, chilliness, anorexia, headache, moderate thirst, weakness, and a dull expression of face. The fever is constant, varying in degree at different times in the twenty-four hours, being usually highest in the evening and at night. A slight cough may also be present. In uncomplicated cases, the most thorough examination fails to reveal a local cause adequate to produce the fever. The duration of this malady varies; it may not be longer than nine days, or it may last for some weeks. ²Quinin has no appreciable effect, unless that it diminishes in slight degree the febrile exacerbations. There is commonly no marked abdominal tenderness or decided tenderness or enlargement of the liver or spleen, and in most cases no rose-colored eruption. A physician of this city has informed me that some twenty-five years ago he attended a case of this fever, which was unusually protracted. The late Professor Alonzo Clark, who was also in attendance, stated that for many years he had taught in his lectures that this mild fever in children was a form of typhoid, but he had never had the opportunity to verify his diagnosis by an autopsy, as he had never observed a fatal case; but a former pupil of his, practicing in a New England city, had recently lost a child from this fever, and being permitted to make an autopsy, had found distinct typhoid lesions. Since Professor Clark's death his opinion of the nature of this fever has been abundantly verified by clinical observations and autopsies. Moreover, in some of the instances, the children, mildly sick in the manner which I have described above, evidently communicated the fever in its usual form to the nurses. Thus, in my practice, two children had the fever in its usual mild form, refusing to remain in bed, and sitting in a listless manner most of the time close to the fire. In about two weeks, when they began to convalesce; the nurse sickened with the same disease, which continued in a very severe form for thirty-five days.

The term malarial fever, so commonly applied to the mild typhoid or enteric fever of infancy and childhood, is, therefore, a misnomer, and in the present advanced state of pediatric knowledge should be abandoned,—*Medical News*.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

SOMETHING OF OURSELVES.

WITH the present issue the NORTH CAROLINA MEDICAL JOURNAL enters its twentieth year—a respectable age, in these days, for a medical journal, especially one not located in a large city, a center of medical activity. Nineteen years ago the JOURNAL was launched under the most adverse circumstances, a committee from the State society, appointed to consider the advisability of the establishment of a journal, having reported adversely upon it. In the face of such unpromising conditions, the bold and energetic founders, Drs. Wood and DeRosset, went bravely into the venture. In a short time Dr. Wood was left alone at the helm, and for a number of years the JOURNAL struggled on, some years at an actual loss to the noble man, who, with an eye single to the welfare of the State profession, and especially the State Society, which he so dearly loved, held bravely on and finally saw it firmly established among the most respected and influential journals of the country.

Ever since its establishment the JOURNAL has worked incessantly, in season and out of season, to uphold the dignity of the profession and to promote the welfare of our State Society, and it is due in great part to its educational influence that the society occupies the position it does to-day, and that we have upon our statute books those laws that are doing so much to protect the health and lives of our people—the medical Practice laws, and the Board of Health laws. The present editor, while conscious of his unworthiness to wear the mantle that has, through the death of his illustrious and able predecessor, fallen upon his shoulders, will never fail to have at heart the same high motives that have marked the career of the JOURNAL in the past.

But the success of a medical journal does not depend solely upon the efforts of the editor or publisher. One of its principle purposes is to disseminate knowledge by giving to the profession at large the new ideas and experiences of individual workers, and therefore the JOURNAL depends upon contributions from the laborers in the field of medical science. Without their cooperation the journal would be of little value. The especial province of this journal is to keep in touch the profession of this section with the profession at large. The medical world has a right to expect the benefits to be derived from the publication of the ideas and experiences of the local profession. This they have not received in as full measure as they should have, and we appeal to the physicians of the State to *write more*.

§½ In material prosperity, we are pleased to state that, notwithstanding the general cries of "hard times," the past has been, by far, the most prosperous year in the JOURNAL's history. We are, therefore, able to present the JOURNAL in more pleasing style and on better paper, which we are sure our friends will appreciate. During the coming year it will contain nearly a thousand pages of reading matter, which will embrace articles from some of the most prominent men in other States, as well as our own, careful abstracts of important articles appearing in other journals, domestic and foreign, hints for the busy doctor, etc., etc. We also propose to furnish to authors of original papers contributed to the JOURNAL, fifty reprints of each paper

published as payment for the article. A request for the reprints must accompany the manuscript of the article.

Asking our readers' pardon for having so much to say about ourselves, and returning our sincere thanks to subscribers and advertisers for their generous support during the past year, we wish each and all a Happy New Year, and such a measure of prosperity as may best promote your present and future welfare.

Abstracts.

ROLE OF THE STREPTOCOCCUS PYOGENES IN HUMAN PATHOLOGY.—(William Bulloch, *Lancet*)—The opinion now almost universally held is that there is but one species of streptococcus which plays a part in human Pathology; viz., that generally termed "streptococcus pyogenes." The differentiation into species probably arose from the number of varieties of pathological lesion in which chain cocci are found. Clinical and experimental evidence unite to show that diversity of lesion may be explained otherwise than by the presupposition that the infecting micro-organisms differ in species. There are four main factors the variations of which determine the nature and extent of streptococcic lesions. 1. The first and most important of these factors is the extraordinary variability in the virulence of the microbe. Starting from a streptococcus harmlessly inhabiting the buccal cavity, we pass experimentally through all stages till we obtain an organism of such exalted virulence as to be capable of producing a rapid and general infection (bacteriemia). Any one of such experimental lesions finds its parallel in human pathology. 2. A variation in the site and depth of the infection produces a difference in the nature and severity of the lesions; this seems to explain why at one time an erysipelas is developed and at another time a phlegmon. 3. Varying resistance on the part of the body is the third factor in the production of a diversity of lesion; witness the severe streptococcic lesions met with in advanced cases of diabetes and Bright's disease. 4. The association of the streptococcus pyogenes with

other microbes, pathogenic and non-pathogenic. These associations the author designates "polymicrobial infections."

The wide distribution of the streptococcus pyogenes renders it difficult in certain cases to determine what has been the immediate source of the infecting cocci. Undoubtedly in a great number of cases and exogenous infection must be assumed. In the polymicrobial infections, however, while this mode of origin cannot be excluded, it is quite possible that the secondary streptococcal infection may be from cocci normally inhabiting the skin or mucous membranes (endogenous infection) and leading a saprophytic existence there under normal conditions. There are two further possibilities: 1. That the virulence of the streptococcus pyogenes is exalted by being associated with other microbes, pathogenic (*e. g.* bacillus typhosus) and non-pathogenic (experimentally, bacillus prodigiosus); or 2, that the apparent exaltation is really an expression of a diminished resistance on the part of the body, caused by the primary infection. In some of the polymicrobial infections both factors seem to be at work; in others only one.—*Amer. Med.-Surg. Bulletin.*

PSYCHICAL TROUBLES ARISING AFTER THE OPERATION FOR CATARACT.—(R. Lowry, *Allg. Ztschrift. f. Psych.*) Lowry reviews the work of Magne, Sandelberg, and others in this line, and directs particular attention to the work of Franckl-Hochwart who has classified these psychic disturbances in four main groups: 1. Confusional hallucinations in patients between the ages of 30 and 60. 2. Simple confusion in the aged. 3. Psychoses in chronic alcoholism. 4. Confusion in cachectic patients, followed by death. The first are characterized by hallucinations of danger, producing fear, anxiety, and confusion. These are apt to be persistent for long periods of time, and the prognosis is not the best. The second class have a better prognosis. The symptoms are rapidly developed but are not as pronounced. In the third group simple hallucinations predominate, the progress is favorable, and the last group comprises the deliriums of inanition. The author gives a case of his own observed in a man past the middle of life, who, on account of the gloomy outlook for the future, was persuaded by

his friends to have his cataract removed; which, on being accomplished, was followed by a condition of chronic hallucinatory disturbances producing fear, anxiety, anger and ideas of persecution. These psychic disturbances are not the results of senility, in the author's opinion, which he claims is in accord with the views of Franckl-Hochwart and Mendel.—*Ibid.*

THE SERUM DIAGNOSIS OF TYPHOID.—Dr. J. J. McKenzie (*Canadian Practitioner*) reports having used the serum test of Widal in the diagnosis of typhoid with satisfactory results. After mixing the culture and the watery extract of the blood of a typhoid patient, as a rule no change is observed for a few minutes, the bacilli moving rapidly backwards and forwards through the field with their characteristic motion. Then one notices individuals sticking together in pairs or in threes moving clumsily, and in a short time others join the clumps, the movement becoming always slower, until finally all the bacilli are tangled together in large clumps containing ten or more individuals, and all movement stops. The reaction takes longer in some cases than in others. In one case it was complete before the preparation could be placed under the microscope, *i. e.*, in about two minutes. In the majority of cases it takes thirty minutes. My own experience is that if there is no evidence of reaction within an hour there is not much chance of its appearing, but it is well to observe the slides for twenty-four hours. In order to be sure of accurate results one must use a very motile culture, *i. e.*, a fresh one, and it is well to have it so dilute that not more than, say, fifty to a hundred bacilli appear in the field. A magnifying power of about 480 diameters is all that is necessary, and it should be used without the Abbe condensor, preferably with artificial light. My results with this method have so far been very satisfactory, and I feel very confident that it will be found an important aid to diagnosis. I have tried the reaction in eighty-two cases, in some of them upon several samples of blood taken at different times. Sixty-one of these cases were typhoid, or subsequently turned out to be typhoid, and in fifty-seven of these I got a positive reaction; in four I got no reaction. I am not prepared to offer any explanation of the negative results in these four cases, except that in

one I had an exceedingly small sample of blood. In twenty-one cases not typhoid, I got a negative reaction in all; there were, amongst other non-typhoid cases, tuberculosis, acute dilatation of the heart, articular rheumatism, septicæmia, and blood from healthy individuals. A number of tuberculosis cases were tried, including two cases of meningeal tuberculosis, with negative results in each case. I have tried cultures of *baccillus coli* in parallel preparations with the typhoid bacillus without obtaining the reaction.

THE BETTER OPERATION FOR HEMORRHOIDS—Dr. F. L. Vaux (*The Canadian Practitioner*) reports 500 cases of hemorrhoids operated upon in Mt. Sinai Hospital, New York, by the clamp and cautery without a death. One case of pyæmia, from which the patient recovered, is recorded, and a few slight hæmorrhages. The following points in the technique of the operation are emphasized: 1. Apply the clamp in the long axis of the hæmorrhoid so that the scar may be a radiating one, and thus avoid any chance of cicatricial stenosis. 2. Dip the distal end of the clamp well down, so as to include the mucous membrane of the hæmorrhoid in its entire length, though only clamping off about one-third of its substance. Be sure that no skin is included, otherwise the subsequent œdema will be very great and time of recovery lengthened. 3. Sear the hæmorrhoid slowly from above downward, layer by layer, the cautery being only at a dull red heat. By observing these precautions any subsequent hæmorrhage is avoided. 4. Insert a tampon cannula as described below, which must not be removed until expelled by the first stool. When the anæsthesia wears off the pain will be intense, and opiates must be given. The Mt. Sinai formula is *Tr. opii deod.*, *m. xv.*, every eight hours. At 5 a. m. on the morning of the third day a half ounce mag. sulph. is given, and at 7 a. m. an oil enema is administered through the tampon cannula. This is important, as it saves much pain when the tampon is expelled. The enemas being expelled bring the cannula with them, and the first stool is comparatively painless. On each successive morning a half ounce mag. sulph. is given, and on the fifth day the œdema will have disappeared in great part, and by the eighth day

patient is ready to go. No dressing save a piece of iodoform gauze and a T binder is used. In a ligature operation the bowels are moved on the fourth day, and in a Whitehead on the fifth. The tampon cannula mentioned above is made by taking a piece of half-inch rubber tubing, sterilizing it, and wrapping around it several layers of iodoform gauze. It is then anointed with sterilized vaseline, and after the operation is inserted in the rectum. The tampon cannula serves a double purpose. It allows the escape of secretions and flatus, so that all danger of retained hæmorrhage is avoided, and also allows the primary enemas to be given without much pain.

THE TREATMENT OF WARTY GROWTHS OF THE GENITALS.—William S. Gottheil, in a paper on Epithelioma of the Penis read before the Society for Medical Progress, November 14th, 1896, concludes as follows: (*International Journal of Surgery*, January 1897).

1. Warty growths of the genitals, more especially in the male, are always to be suspected of malignancy, no matter how innocent they seem.

2. They should either be left entirely alone, or be thoroughly removed by knife or cautery.

3. Imperfect attempts at destruction, as with nitrate of silver, carbolic acid, etc., are especially to be avoided; there being many cases recorded in which they have apparently stimulated a benign growth into malignant action.

THE TREATMENT OF ULCERS AND OTHER SURGICAL CASES BY OXYGEN.—Dr. George Stoker (*The Hospital*) contributes a paper on the use of oxygen in the treatment of old ulcers and also in the treatment of ozæna and suppurative middle ear disease. The treatment consists in the exposure of the affected part to oxygen gas. The method in its simplest form is seen in the treatment of the arm or leg. The limb is placed in an air-tight box, which is then attached to a bag containing about $\frac{1}{4}$ cubic foot of the gas. This is sufficient, under ordinary circumstances for about twelve hours' use. The exposure may be either continuous or intermittent. The wound should be cleansed twice daily with warm water. The oxygen causes the formation of a

parchment-like film round the margins of the wound over the newly growing skin, and unless this film is removed it prevents the oxygen getting at the parts underlying it, and delays healing. Its removal is best effected with fine dissecting forceps. In the treatment of the ear or nose the tube is inserted and the gas allowed to remain in contact with the diseased membrane from a half hour to an hour three to five times a day.

The author sums up the advantages of this treatment as follows: It heals cases that have resisted other forms of treatment (this is especially marked in recent cases); it relieves pain, stops foul discharges and bad smells, it forms a healthy and vascular cicatrice, which in cases healed many months ago has shown no tendency to break down. While it is possible to use this treatment in private practice it can be adopted to best advantage only in an institution where full apparatus is provided.

NEW METHOD OF RADICAL CURE OF INGUINAL HERNIA WITHOUT SUNKEN THREADS.—An article in the *Semaine Méd.* of November 11, signed by Professors Duplay and Cazin, illustrates a way by which the hernial sac is tied without threads which frequently produce trouble later. The sac is first opened and explored with the fingers, all adhesences detached, and a portion of the omentum resected if necessary. The sac is then completely dissected, and an assistant draws out the base with a pair of forceps as far and as long as possible, with that portion of the peritoneum normally situated 2 to 3 centimeters above the internal inguinal ring. The operator then seizes the end with another pair of forceps and draws it around and through to make a knot, as high up as possible. The ends remaining above the knot are then split and one end is drawn around and through in the same way, to make another knot, or passed through a slit in the other half, and this is repeated as often as the length of the sac will allow. In one case the sac was so short that it was split in four pieces and the four ends tied in knots two by two. A strong fastening is thus made without the introduction of any foreign substance, remarkably simple and perfect in its results. When the traction ceases it sinks out of sight immediately, as in the classic operation. It was always found that the highest part of the knot remained 2 or 3 centimeters above

the internal inguinal ring. The operation is then completed in the usual manner. If the sac is too thick to be tied in this way, it can be split and knots made in each half separately.—*Jour. of the Am. Med. Asso.*

THE COMMENCEMENT OF DIABETES MELLITUS.—Loeb (*Centralb. fur innere Medicin.*) points out that little is known with respect to the earliest stage of diabetes. When the patient first seeks medical advice, it is generally on account of some definite symptoms, and the urine is then generally found to contain a large amount of sugar (1 per cent. or more). The patient often states that he has suffered from the symptom of the disease for a certain definite period only. But the author records cases which show that these statements are often unreliable, and that the disease may first begin as a slight and temporary glycosuria. In none of Loeb's cases the urine contained 5.3 per cent. of sugar, the specific gravity was 1038, and there was a history of thirst of only fourteen days' duration. But the author happened to have examined the urine two years previously whilst the patient was suffering from an attack of intercostal neuralgia. At that time 0.25 per cent. of sugar was present, but this had disappeared at the end of nine months. Hence long before the well-marked symptoms of diabetes had developed, there was a diminished power of utilising carbohydrates in the system, and slight temporary glycosuria as a result. In a second case of diabetes the urine contained 7.9 per cent. of sugar, and had a specific gravity of 1042. The patient stated definitely that symptoms of the disease had been present for four weeks only. But the author happened to have made an examination of the urine five months previously, and at that time had found traces of sugar present. In a third case of diabetes the urine contained 4 per cent. of sugar. The author had found traces of sugar in the urine two years and a quarter previously. In a fourth case, for four years and a quarter the author has found trace of sugar in the urine from time to time. On one occasion the sugar excretion reached 0.38 per cent. The author concludes that in a great number of cases of diabetes, for a long period—often for years—before a large quantity of sugar is excreted, and before the characteristic symptoms of the disease

appear, small quantities of sugar are excreted in the urine temporarily. During this period the patients are quite well, and, having no cause to consult a medical man, the opportunity of detecting this slight and temporary glycosuria seldom occurs. The author, of course, admits that there is not this gradual onset in all cases. He admits that there are cases which are very acute, cases in which a large quantity of sugar is found in the urine from the first. The author thinks that the temporary occurrence of a small quantity of sugar in the urine ought not to be regarded lightly. The cases above recorded show that sometimes it is followed by severe diabetes. On the other hand, some of the cases recover completely, and the author adds an example of this—a case of slight and temporary glycosuria—which he has followed for four years and a half, and which has finally ended in recovery.—*Brit. Med. Jour.*

SANITARIUMS FOR CONSUMPTIVES.—It is announced, says the *Medical Fortnightly*, that several large insurance companies are figuring on the cost of maintaining sanitariums in the Rocky Mountain regions for the accommodation of their consumptive risks. It would be well for these companies, while figuring on such sanitariums, to consult a very interesting paper published in the November number of the *New England Magazine* in substance as follows: Moore county lies somewhat south of the centre of North Carolina. It is a triangle of generous size. One hundred and fifty miles eastward is the Atlantic, and the Alleghanies are two hundred miles to the west. Southern Pines is seventy miles south of Raleigh. Some twelve years ago a physician from New York, by advice of Professor Kerr, the State Geologist, took up his abode there for the cure of threatened consumption. His improvement was such that others followed. Now there is another village near by called Pinehurst. Trains from Norfolk make this region easily accessible. Pinehurst is a model town. In 1895, the proprietor, a Boston gentleman, bought 5,000 acres and selected a site of one hundred acres for the village, which has been laid out by famous landscape architects; sewerage, water supply, electric lighting are well provided. Hotel and cottages are first class, at moderate rates. It is strictly a prohibition town and discreditable tenants are required to leave.

The writer protests against the unwisdom of establishing retreats or hospitals for people with weak lungs in the inclement North, merely to die, when they can use the means which God and man have provided and live. For years intelligent people have been urging reform in this matter. The Southern Pines has demonstrated the way out. What has taken place there should be well studied by all parties contemplating sanitariums for consumptives.

The *Bulletin* has repeatedly directed the attention of the people of Tennessee to the great value of what may be called its climatic resources. Hitherto, these resources have been too much overlooked, although several points are much frequented by visitors from Northern climes for relief from winter oppression.

Our plateaus, mountains and healing fountains should be more forcibly made known.—*Bulletin Tennessee Board of Health.*

LEUCOCYTOSIS AND IMMUNITY, WITH A CRITICAL ANALYSIS OF THE THEORY OF NEUCLEIN-THERAPY.—Dr. Walter A. Wells, of Washington, in the *Medical News* for October 17, 1896, discusses at length the theory of nuclein-therapy, and summarizes his careful and interesting article as follows:

(1) Notwithstanding the long-continued conflict as to the importance of the cell and of the lymph respectively, as the protecting agency of the body, it is probable the claims on each side will be found reconcilable.

(2) There is no reason for regarding the leucocytosis, which appears after the introduction of nuclein into the system, as differently produced than that which follows from a great number of other agents many of which are poisons.

(3) Theories of artificially induced leucocytosis, which assume an essential new production of leucocytes by the blood-making organs, are inconsistent with the fact that the blood-making organs send forth only mononuclear cells, whereas in all these forms of leucocytosis, the polynuclear are only or chiefly increased.

(4) Also, Löwitt's theory of leucolysis and consequent leucocytosis fails to stand the test of experiment or of reason, in the light of unknown physiological principles.

(5) The most rational explanation of leucocytosis is, includ-

ing the invariable antecedent, leucopenia, according to the principal of themotaxis. The predominance of polynuclear cells is thereby accounted for in the greater sensitiveness of these forms to themotactic influences.

(6) We must regard, therefore, a leucocytosis as only a local condition; that is to say, only a determination of the white cells into the peripheral circulation, without any real, significant, absolute increase of the whole number of those cells. This view is supported by a number of experiments, which showed that at the stage of leucocytosis as found in the peripheral vessels, there was a coincident decrease in the internal vessels.

(7) The leucocytosis produced by nuclein is of this kind. The uric acid found in increased amount in the urine of patients after administration of nuclein may be formed from the nuclein direct and not from the white blood-corpuscles. There is, moreover, no constant correspondence in the number of leucocytes and the amount of uric acid excreted, for there may be leucocytosis without increase of the uric acid, as there may be often an increase of uric acid without leucocytosis.

(8) There is some reason for believing that, of all leucocytes, those possessed of the eosinophilic granules play the most essential rôle in protecting the organism against infectious diseases. A suggestive correspondence exists between those diseases which are distinguished by an augmentation of eosinophiles and diseases antagonistic to tuberculosis.—*Boston Med. and Surg. Jour.*

CONTAGIOUS IMPETIGO.—By William S. Gottheill, M.D. (*Pediatrics*, October 1896). This is a self-limited contagious disease of children appearing in localised epidemics, and first described by Tilbury Fox in 1864. Accompanied by a moderate fever and some gastric disturbance there appear on the face and hands groups of flat vesicles filled with transparent or cloudy serum. These dry up into characteristic golden yellow crusts, which fall off in two or three weeks, leaving circular, reddened, non-ulcerated areas behind. Successive crops of vesicles may prolong the disease for two months or more. It is undoubtedly parasitic; but, though Kaposi claims to have found it, the etiological factor is still unknown. The treatment consists in re-

moval of the crusts with olive oil compresses, cleansing the skin with hot water and soap, boric acid solution, etc., followed by the use of Lassar's paste:

R—Acid salicylic.	30 grains.
Petrolati.	1 ounce.
Amyli.	
Zinci oxidi.	a.a. $\frac{1}{2}$ ounce.

Therapeutic Hints.

PRURITUS OF THE VULVA.—In cases that are not parasitic, says the *Indépendance médicale*, M. Mussy advises the following applications:

R—Finely powdered starch.	300 grains.
Bismuth subnitrate, } of each	15 “
Potassium bromide, }	
Calomel.	8 “
Powdered belladonna.	3 “

M. To be applied twice a day. It is said to give almost instant relief.

When the itching affects the inner surface of the mucous membrane, it is preferable to prescribe the following:

R—Infusion of mallow flowers.	1 quart.
Cherry-laurel water.	750 grains.
Borax.	150 “

M. To be used as an injection twice a day. After each injection, the parts are to be smeared with an ointment.—*Medical Record*.

ACUTE BRONCHITIS.—

There is probably no condition the physician is no often called upon to treat without the opportunity of examining the patient as in acute bronchitis. In such cases all he knows is furnished second hand, and amounts to—“he or she has a cough.”

Hence, the necessity of having a “stock prescription” for such patients that will do the greatest good to the greatest number; one that is easy to remember and easy to proportion the

dose according to the age of the patient. The following fully meets all requirements:

℞—Vini ipecac.

Vini antimon. aa. . . . 3 ii.

Glycerin. 3 iv.

Liq. ammon. acet 3 i.

Aqua q.s. ad. 3 iii.

M. Sig: Teaspoonful every 3 or 4 hours.

LINIMENT FOR RHEUMATISM

℞—Sodii Salicylas. . . . 3 iv

Ol. Eucalyptus. . . . 3 i

Ol. Cayuputi. . . . 3 i

Sin. Sapon camph. . . . 3 i

Spir. Vini rect. . . . 3 vi

M. ft. Sol.

Sig.

Apply three times daily.—*Medical Record.*

SOME POINTS IN THE TREATMENT OF CHILDREN'S DISEASES.—(Edward P. Davis, M.D., *Philadelphia Polyclinic*). Barley water is prepared by adding one tablespoonful of barley grains to one pint of scalding hot water, allowing it to stand and then straining; it is a valuable addition to the diet, exerting an astringent action on the bowel in case of diarrhœa.

Oatmeal water is prepared by the addition of one tablespoonful of oatmeal to the pint of scalding water, allowing it to stand; strained and administered, it exerts a laxative action.

If the child vomits, is feverish and has frequent stools, the milk should be stopped altogether for twenty-four to thirty-six hours and albumen water substituted.

Albumen water is prepared by adding the white of one raw egg to eight ounces of water; in addition the child should get light chicken or mutton broths of freshly extracted beef juice.

Brandy and water form a good stimulant and may be administered in ten-drop doses six or eight times a day. The administration of a dose of castor oil, guarded by some brandy to prevent griping, is of exceeding value to clean out the irri-

tating material from the intestines. Lavage of the intestine of first importance in intestinal infantile disorders. It is usually accomplished by the use of a number 11 or 12 soft rubber catheter and a fountain syringe with one or two quarts of warm water. The best result is obtained if the infant is placed on its abdomen across the nurse's knee, the water being at a temperature of 100°F., and a little soda or salt added to it. Great relief is obtained from the evacuation of the flatus and fæces. In chronic cases some antiseptic and astringent must be added to the water, thus:

Boric acid, $\frac{1}{2}$ ounce to the quart.

Creolin, 30 drops to the quart.

Sodium salicylate, 10 gr. to the quart.

Thymol, 1 part in 2000.

Mercuric chloride, 1 part in 10,000.

The use of the solution of mercuric chloride should be followed by irrigation with warm water; this irrigation of the intestines not only removes the flatus and fæces but exerts a stimulant action upon the bowel.

Miscellaneous Items.

A physician desiring a good location would do well to write to Mr. Julius Johnston, at Yanceyville, Caswell County, N. C.

Dr. J. W. P. Smithwick was married to Miss Sallie Thompson, December 23, 1896, at Aurora, N. C., the home of both parties.

The American Medico-Surgical Bulletin has with the new year, returned to semi-monthly publication. It is an ably conducted journal.

We learn that Mr. George S. Davis has withdrawn from the firm of Parke, Davis & Co. The business of this well known firm will not be interfered with, however.

BOTTLED AIR.—It is claimed that a French chemist, Linde, has invented a process by which air can be condensed to contain 70 per cent. of oxygen instead of 25 per cent. It is proposed to bottle mountain and sea air and furnish it to invalids at their homes.

BEEES AS MANUFACTURING PHARMACISTS.—A Frenchman has been trying to use bees for the preparation of honey that has medicinal properties. A certain swarm of bees is allowed access to only a certain flower which has the desired property. It is said in this way honey has been obtained that is of benefit in the treatment of coughs, asthma, indigestion, etc.

We are in receipt from the Antikamnia Co., of a very unique and artistic calendar for 1897. It is a lithographic reproduction of the skeleton paintings by Louis Crussius, the original of which are in water colors, and are now in possession of this well-known firm. A copy of this calendar will be sent to any of our readers who will take the trouble to write for one and mention this JOURNAL.

"PHYSICIAN, HEAL THYSELF."—A prominent physician of India recently died from the bite inflicted by one of the deadliest of snakes; he had been making experiments with a view to the discovery of an antidote, and supposed he had rendered himself proof against the venom of snakes. One of the worst victims of rheumatism we ever knew was a man who had discovered a positive cure for that disease. The secretary of the Amick Consumption Cure Company died of tuberculosis.—*Massachusetts Medical Journal.*

The American Association of Obstetricians and Gynecologists at its ninth annual meeting held at Richmond, Va., elected the following named officers for the ensuing year—namely: President, James F. W. Ross, M.D., Toronto; vice-presidents, George Ben. Johnston, M.D., Richmond, and John C. Sexton, M.D., Rushville, Ind.; secretary, William Warren Potter, M.D., Buffalo; treasurer, Xavier O. Werder, M.D., Pittsburg. Executive council: Charles A. L. Reed, M.D., Cincinnati; Lewis S. Mc

Murtry, M.D., Louisville; A. Vander Veer, M.D., Albany; J. Henry Carstens, M.D., Detroit; and William E. B. Davis, M.D., Birmingham.

The next annual meeting was appointed to be held at the Cataract House, Niagara Falls, N. Y., Tuesday, Wednesday, Thursday and Friday, August 17, 18, 19, and 20, 1897.

Telegraphic reports announce that the bubonic plague in Bombay is still on the increase, notwithstanding the fact that large numbers have fled from the place. Over 2,000 cases have occurred with a mortality of nearly 75 per cent.

Raleigh is to have the first free dispensary in this State. It will be opened at an early date in connection with the schools of medicine and Pharmacy of Shaw University. It will furnish free advice and medicine to the needy and deserving colored people.

Will the incoming Legislature repeal the unreasonable and onerous tax that was imposed upon the physician of the State by their predecessors? Suppose each doctor who is well acquainted with the members from his county suggest to them that the doctor's free service to the poor is a sufficient contribution to the general public without the payment of a special tax.

AN OFFER TO OLD SUBSCRIBERS.—We want every doctor in the South to read the NORTH CAROLINA MEDICAL JOURNAL. Some papers offer premiums to which only those *not* subscribers are entitled. We believe in standing by our old friends, and if there is any thing going give them the benefit of it. *Any old subscriber sending us the name of a new subscriber with \$2.00 will have the date of expiration of his own subscription advanced one year gratis.*

BUBONIC PLAGUE IN LONDON.—Two cases of bubonic plague have occurred in the Seamen's Branch Hospital, London. The first case died a few hours after admission. The second was supposed to have pneumonia, but there were none of the physical signs of pneumonia, and a painful glandular swelling in

the groin, a peculiar happy delirium, red ferrety eyes and high temperature led to an examination of the blood which was found to contain some motile bacilli. Prompt and thorough action was taken to prevent contagion and no other cases are reported. There was great excitement on account of the appearance of this disease, but the prompt action of an efficient health board soon restored confidence, thus showing how important is a health board to the welfare of a community. Let our new legislators take note.

THE DISSEMINATION OF MEDICAL KNOWLEDGE.—Dr. George M. Gould writes us asking for an expression from the profession through the JOURNAL as to the relation of the lay publishing firms of medical Journals and the profession. The request is suggested by the refusal of a firm of publishers, who publish two of the most important journals in the country, to permit the editors of the American Year-Book of Medicine and Surgery to use abstracts of papers which have appeared in their journals, or to reproduce illustrations. He criticises their action on the following grounds:

1. It prevents the dissemination of medical knowledge. The Year-Book condenses, systematizes, and criticises the year's medical work in a shorter space and more permanent manner than the journals, and has thousands of readers no single journal can claim, or hope to reach. Every physician writes and publishes articles in order that every member of the profession may, if possible, learn of his work, and that science and progress may thus be furthered and humanity benefited. To interfere with such dissemination of our literature in reputable publications is, I think, discourteous and unjust to the profession and an injury to medical science.

2. This injustice and injury to medicine become all the more striking when physicians do not receive a cent of pay for contributions, from the publication of which the lay-publisher is supposed to make considerable financial profit.

3. No other publishers in the world, not even those who pay authors for their contributions, have in the least objected to our reproduction of quotations, abstracts, and illustrations from their journals.

Do you wish to limit the dissemination of your contributions to medical science by such an exclusion of them on the part of publishers from reputable publications? *Is this literature the property of yourself and of the profession or not?* Does your gift of it to a journal make it the private property of the publishers of that journal? Is it not rather a loan for temporary use only?

Will you not be eager to demand that there be printed with your article a statement that the right of abstracting the text or reproducing illustrations is guaranteed?

Reading Notices.

The most frequent forms of diseases of the eye are those located in the mucous membrane of the eyelids, (conjunctiva). When left alone they are not only a fruitful source of annoyance and suffering, but they often endanger the existence and usefulness of the eye as an organ of sight. The frequency of these external affections of the eye has made their treatment one of the richest mines for quacks from the oldest times. All practitioners of medicine being called upon to treat these diseases, especially those in the country recognize from the formula of Palpebrine a product of no untried remedies but entirely reliable in the treatment of External Eye Diseases. The Dios Chemical Co., of St. Louis, Mo., will mail free sample and literature on application.

AN ALTERNATIVE OF UNSURPASSED POTENCY.—It is not unlikely that all our readers are well and favorably acquainted with Elixir Iodo Bromide of Calcium Comp. (Tilden). A preparation which has stood the test for over thirty years. But it is natural to be influenced somewhat by the extravagant promises made for other preparations, claiming to be "the same thing" or "just as good," and offered to the profession by supposedly reputable houses.

It is, therefore, apropos to remind the profession that "Elixir Iodo" has no equal in its special field and that the attempts of dishonorable competitors to foist upon the doctors worthless imitations is doing incalculable damage to the reputation of the physician and the well-being of his patient.

SYR. HYPOPHOS. CO., FELLOWS.

CONTAINS THE ESSENTIAL ELEMENTS of the Animal Organization—Potash and Lime

THE OXIDISING AGENTS—Iron and Manganese ;

THE TONICS—Quinine and Strychnine ;

AND THE VITALIZING ONSTITUENT—Phosphorus ; the whole combined in the form of a Syrup with a Slightly Alkaline Reaction.

IT DIFFERS IN ITS EFFECTS FROM ALL ANALOGOUS PREPARATIONS ; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

IT HAS GAINED A WIDE REPUTATION, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

ITS URATIVE POWER is largely attributable to its stimulant tonic, and nutritive properties, by means of which the energy of the system is recruited.

ITS ACTION IS PROMPT ; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation, with the food products.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles ; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

MEDICAL LETTERS MAY BE ADDRESSED TO

MR. FELLOWS,
48 Vesey Street, New York.

Tablet Therapy

Undoubtedly stands high in the professional estimation at the present time, and justly so on account of the many clinical advantages which it possesses as a method of medication. We now manufacture **Lactopeptine** in tablet form (five grains each) and to still further increase their therapeutic efficiency, we have added a small quantity of bromelin, the vegetable digestive ferment recently isolated from pineapple juice. The **Lactopeptine Tablet** renders it easier for business men, or those who are away from home during the day, to carry the remedy with them in a convenient form for administration at regular intervals as described by the physician.



Please note especially that each tablet is plainly stamped with the initials N. Y. P. A. to prevent substitution.

Put up in bottles containing
100 5-gr. Tablets and 50 5-gr. Tablets.



South. Write to J. T. PATRICK for Information.

Twentieth Year.

JANUARY 20, 1897.

Vol. 39, No. 2.

NORTH CAROLINA MEDICAL JOURNAL.

PUBLISHED SEMI-MONTHLY AT \$2.00 PER ANNUM.

Robert D. Jewett, M.D., Editor.

[Entered at the Post-Office at Wilmington, N. C., as Second-class mail matter.]

A NEW DIGESTIVE FERMENT

**Useful in all ailments arising from
faulty digestion of starch.**

The profession have tried, says the THERAPEUTIC GAZETTE, to aid the digestion of starch for many years by the use of various preparations of malt, which have been largely given with little direct good as a result, for the diastatic properties of most of these preparations are so slight as to render them practically of no value as digestants, whatever may be their usefulness when acting as nutritives. Within the past few months a Japanese investigator has obtained such a valuable diastatic product that his researches deserve careful study and his results thorough trial. If, as he has apparently proved, we possess in Taka-Diastase a starch-digestant equal to or exceeding in power pepsin or pancreatin for proteids, we have made an extraordinary gain in therapeutics, for we are now able to relieve a large number of persons suffering from faulty digestion of starch, and can aid our patients during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods.

Taka-Diastase has now been under trial at the hands of the profession for nearly eighteen months, and it seems to have been proven conclusively that it is the remedy in amylaceous dyspepsia. Immediate improvement in digestion follows its administration. From 1 to 5 grains should be taken with the food or immediately thereafter; if in capsule form, at the beginning of the meal.

CORRESPONDENCE RESPECTFULLY SOLICITED.

Parke, Davis & Co.,

**Detroit, New York,
Kansas City, Balti-
more, New Orleans,
U.S.A. London, Eng.
and Walkerville, Ont.**

STERILITY.

I know of nothing with which I have had better success, in treating the various diseases peculiar to the female, than ALETRIS CORDIAL. I have used it in amenorrhea and dysmenorrhea, with excellent results and also in ovarian and uterine congestion, whether from cold or otherwise, I know of no better remedy. Mr. L. consulted me about his wife. Had been married four years, and had no children. He was a strong, healthy man, about 28 years of age, and his wife 24. He was very anxious that there should be an increase in the family and had two other physicians at different times, giving her medicine for that purpose. I ascertained that she suffered very much with her menses, and frequently had to take to her bed during the time. They were sometimes very scant, and at others rather profuse. When consulted it was a week before her menses should appear. Prescribed

R. Aletris Cordial..... 8 ounces.

Sig. One teaspoonful three times a day.

The husband reported that his wife had the easiest time she had ever experienced, and suffered no pain. When the next time came the menses did not appear; two bottles of ALETRIS CORDIAL were taken, and in regular time they were made happy by the advent of a bright, bouncing girl. The above is one of several cases of the same kind I have had in my practice. I have been prescribing ALETRIS CORDIAL in my practice for about five years, and from its use during that time I have certainly had an opportunity of testing it very well both singly and combined. When treating females of a weak, nervous and hysterical condition, caused from uterine derangements, the following will relieve in nearly every case :

R. Aletris Cordial..... 8 ounces.

Celerina 8 ounces.

M. Sig. Two teaspoonfuls three or four times a day.

JAS. P. PEELER, M. D., Kissimmee City, Fla.

NORTH CAROLINA MEDICAL JOURNAL.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND
SURGERY.

VOL. XXXIX. WILMINGTON, JANUARY 20, 1897. No. 2.

Original Communications.

CASES IN PRACTICE.

By E. P. HURD, M.D., Newburyport, Mass., Professor of
Pathology, College of Physicians and Surgeons,
Boston, Mass.

HYPERPYREXIA ASSOCIATED WITH INFANTILE CONVULSIONS.

WAS called to see a child yesterday (December 16, 1896), who was suffering from convulsions which never ceased until the death of the child, ten hours later.

Previous condition—Good; had been in good health till taken with the fit Tuesday morning.

Hereditary Antecedents.—The mother had had convulsions in childhood, and since her marriage has had several fits, probably of a hysterical nature.

When I saw the little girl at 11 o'clock a. m., she had a good pulse, and seemed a well-developed child, with thin delicate skin and blond appearance—rather large head. She was then in general convulsions; the eyes were rolling in the sockets, with widely dilated pupils; the muscles of the mouth were twitching; there was violent jerking of the arms and legs; there was complete unconsciousness. The child had bitten her tongue in the fit, and there was some frothing at the mouth. The cries and moans of the infant were most distressing; I could hear them before I reached the house. There was a wild stare about the

eyes which seemed almost to start from their sockets—convergent squint. The face was flushed and the head hot. There had been no cessation of the convulsions since 9 o'clock when they began.

I was a mile from my office and had no chloroform with me. On inquiry I found that the child had eaten beans for breakfast, candy and nuts the day before. Had not been constipated. The mother had given the babe a warm bath, as is usual in such cases. She had also administered a dose of castor oil. I gave three small doses of calomel, in all about seven grains, and ordered an enema of soap-suds and molasses, which was, however, without effect; tr. gelsemium and tr. belladonna, both in one drop doses. Before leaving the house I did what I have sometimes done in puerperal convulsions: gave a hypodermic injection of morphine— $\frac{1}{32}$ grain only. I should not have done this if I had had ether or chloroform with me. I cannot say whether this was a good thing or not; certainly it seemed to have no effect unless, probably, it deepened the coma in which the child was plunged. It did not affect the pupils, which remained during the fits widely dilated. Of course, as a general rule, opium and morphine are contraindicated in children under five years of age.

I was obliged to return home at 12:30 o'clock and did not see the child again till 3 o'clock p. m. I brought with me some chloroform, and as the condition was not materially changed, the child still twitching and jerking in all the limbs, I put her under chloroform. This, in a measure, controlled the convulsions but not altogether, for there was still twitching of the corners of the mouth, and although the eyes were shut, there was more or less oscillatory movement of the eye-balls. I staid an hour applying the chloroform more or less constantly, taking the towel away when the convulsions ceased. There had been no action of bowels, and no urine had been passed. The head was intensely hot, as was the whole body. A cold wet cloth was applied to the head to be frequently renewed. Cold sponging of abdomen and extremities. The hyperpyrexia was marked— 107 in the axilla. Of course the prognosis was most unfavorable. There was here probably something besides *reflex irritation from undigested food in the intestines*; these reflex convulsions

from indigestion generally subside after a time, and when the bowels have acted they go away altogether.

The persistence of the convulsions in this case suggested active hyperæmia, with probably more or less exudation at the base of the brain, and an infectious cause operating through the blood. Yet there could be only vague surmising as to the nature of that infection, whether it was a streptococcus basal meningitis or a pneumococcus meningitis, or possibly a meningitis due to the tubercle bacillus that had been aroused. Again, against this theory of meningitis was the fact that there was no arching backward of the body of the child—meningitic opisthotonos—which is generally witnessed in such cases.

The theory on which I have settled is that this was an auto-intoxication—a poison generating in the system and circulating in the blood—but which the medulla spinalis was thrown into a high state of hyperæmia and irritability, and the heat inhibitory centers in the cerebrum paralyzed. This auto-intoxication probably arose, as generally in such infantile convulsions, in the alimentary canal. Ptomaines and poisonous products were formed, which were absorbed and were the source of the mischief. The kidneys were, at the same time, violently congested, and there may have been a uranæmic complication.

You see how obscure is often our pathology in reference to this so common ailment of infants. I have nothing to add, except that, on making my evening visit at 7 o'clock, I found the child in the agonies of death: She had been working in convulsions all day, and died at 8 o'clock.

I believe that the chloroform treatment is the best treatment in such cases, and it seems to me often to have saved life in my practice. Give your calomel and your castor oil, and apply your chloroform until the violence of the paroxysm is broken and all is quiet. Then on a renewal of the spasms resort again to the chloroform, and do this fearlessly. I believe in the warm bath at the outset of the convulsions, and in *energetic cold water treatment*, if there be high fever heat.

DEEP SUPPURATIVE DISEASE OF THE LIVER—CARCINOMA OF THE LIVER AND PANCREAS.

I have another patient who is subject to intermittent febrile paroxysms, where the temperature goes up to 105° F. He is

not a malarial patient. He has what is called "hepatic intermittent fever." These paroxysms come on every second day, as a rule, but there is no great regularity about them. He may go four or five days without chills or fever.

This man, whose age is 57, is quite jaundiced and has a decidedly cachectic look. The liver is enlarged as is plain to the sight when you examine him in bed; the whole hepatic region bulges. Hepatic dulness almost occupies the right thorax, as determined by percussion, yet it is hard to feel the liver under the lower ribs, the abdominal muscles are so tense and the intestines so distended with gas. His stools are not clay colored, but dark, which shows that there is not complete obstruction to the flow of bile into the intestines. The urine is scanty and high-colored, and contains much bile pigment.

I do not think that this man's trouble is due to biliary calculus, though it may be. There has never been a history of gall-stones—never any gall-stone colic. His tongue is clean, but perfectly dry and glazed. He is greatly prostrated and takes very little nourishment, and this of a liquid nature. There is some suppurative disease of the bile ducts or hepatic substance, for these intense chills followed by high fever from which he suffers are, I believe, the expression of pus somewhere in the liver. Yet there is no pain in the right side and no signs of a massive abscess.

I believe that the case is one of cancer of the liver, with obstruction of some of the bile ducts and some suppuration accompanying the obstruction. The case bears a strong resemblance to some recorded by Frerichs in his *Treatise on the Diseases of the Liver* (Vol. III., p. 69, Amer. Ed.)

Addendum.—Since the above was written Mr. H. has died. A hasty autopsy was obtained, but little time being allowed, as preparations for the funeral were going on.

The liver was found riddled with small abscesses, the largest not being bigger than a small orange. There were also scattered through its substance, numerous nodules of hard, firm consistence which seemed to be distinctly carcinomatous. There was one of larger size in the hilum, within the folds of the gastro-hepatic omentum. The head of the pancreas was enlarged, hard and knobby, presenting all the characteristics of a

schirrous formation. The left extremity of the pancreas was dilated, and full of white creamy pus.

It is rare to find cancerous nodules in an internal organ, accompanied with multiple abscesses, as in the above case. The question arises: Where did the pus microbes come from?

My theory is that they came from the intestine. The liver, early in the disease, became troubled in its nutrition, owing to the developing carcinomatous affection of the pancreas, and secondary cancerous nodules were formed there. Some of these were deposited around the terminal biliary canaliculi, causing gradual obliteration. This was just the condition as Dupre has shown (*Les Injections Biliares*, Paris, 1891), for an infection to implant itself. The pyogenic microbes were probably *colon bacilli*, always present in the intestine. The abscess in the pancreas is to be accounted for in a similar manner.

It is a regret to me that the autopsy was not conducted with more care; also that I subsequently lost specimens which I had removed for hardening, and future microscopic examinations.

RESIDUAL URINE OF THE URETHRA.*

BY STUART MCGUIRE, M.D., Richmond, Va., Professor of Surgery in the University College of Medicine, and Surgeon to St. Luke's Home, the Virginia Hospital, and the Home for Incurables.

THE penis is both a urinary and a sexual organ, and, like all compromises, has certain defects which render it liable to diseases. Disorders of the kidney and bladder affect its sexual function, and venereal troubles cripple it for the discharge of its urinary duty. So intimately are the two associated, that in treating disease of the one the possible influence of a pathological condition of the other must be constantly considered.

There is no condition met with in genito-urinary practice so

*Read before the Richmond Academy of Medicine and Surgery.

difficult to cure as chronic posterior urethritis. I do not propose to discuss the disease systematically in this paper, but I want to call attention to the fact that in many cases, the condition is maintained and the treatment frustrated by the presence of residual urine in the urethra. It has long been known that a few drops of urine may be retained behind a tight stricture, but I have been unable to find mention of the possibility of a considerable quantity of urine being left in a dilated portion of the urethra and acting as a causative factor, or as an obstacle to the cure of the disease.

The urethra is not a tube of uniform calibre, but has points of physiological narrowing. It is divided arbitrarily by anatomists into three portions, the spongy, the membranous, and the prostatic; by surgeons into two—the pars anterior and the pars posterior. The urethra has two curves—one fixed by the prostate, the other movable and depending on the position of the penis. When urine passes through the urethra it is propelled not only by the *vis a tergo* of the bladder, but by the connection of various muscles, and the channel is normally emptied of the last few drops of fluid by a progressive wave of blood which flows from the bulb through the corpus spongiosum. A careful study of the anatomy of the urethra will at once suggest the possibility of urine stagnating at certain points and a review of the physiology of micturition will show how nature has seemed to foresee the evil results which would follow, and guard against its occurrence.

It was my misfortune at the very beginning of my professional life, to have several patients with chronic inflammation of the deep urethra. I treated them with indifferent success, and, from my inability to cure them, attributed the symptoms of which they continued to complain to sexual neurosis of hypochondriasis. Finally, I bought an electric urethroscope, and began to examine systematically every case of chronic urethral trouble that came into my office. At first, I accomplished little; but after I became familiar with the healthy and the diseased appearance of the mucous membrane of the canal, and learned by experience what local applications did most good my results were very gratifying.

In several different cases, when I looked down the tube, I

almost invariably found its end filled with fluid, and so constant was this condition that I expected to find it, and had a mop ready to remove it. I did not at the time appreciate its significance, and supposed that I had introduced the instrument too far, and had dilated the sphincter of the bladder. Last winter a patient came to see me suffering with chronic posterior urethritis, but, in addition to the usual symptoms, he said that after urinating his trouble was greatly increased, and that he could only obtain relief by stroking his perineum firmly with his finger from behind forwards, and thus milking out about half an ounce of urine which remained in the deep portions of the urethra. The passage of a No. 30 sound failed to detect a stricture, and I was forced to the conclusion that the residual urine was not dammed back by an obstruction, but was retained in a dilated and inelastic pouch of the urethra. I have now the record of four other similar cases, the quantity of retained urine varying from one drachm to half an ounce.

Residual urine of the urethra may be caused in one of two ways, or by a combination of both. Either there may be a stricture of the urethra, and the urine on rushing down from the bladder meets with the obstruction, and by hydrostatic laws expands the portion of the canal behind the stricture, and the repeated distension causes the part to lose its elasticity and contractility and remain patent; or there may be no stricture; but a chronic inflammation of the mucous membrane and adjacent structures may so lessen its tone and relax its tissues that dilatation and sacculation follow. In both cases the result is the same; urine is retained in the urethra, and, undergoing decomposition, irritates its sensitive surface and produces distressing symptoms.

It is a question whether residual urine in the urethra is the cause or the consequence of posterior urethritis. The practical fact is that the condition cannot be cured till it be removed.

The treatment of such cases must be moral, hygienic, constitutional, and local. The patient is in a state of mental depression bordering on sexual neurasthenia. He is as morbid and hysterical as a woman with "womb disease." By kindly sympathy and judicious encouragement the surgeon should win his confidence and overcome his fears. The patient's diet should

be restricted, his bowels regulated, and a moderate amount of exercise advised. If he be married, sexual intercourse need not be interdicted; but if he be single, he should remain continent and carefully avoid all possible sources of excitement. Tonics are frequently useful; if the patient be weak and has no appetite, give him a bitter stomachic like tincture of cinchona; if he be pale and anemic, give him large doses of tincture of the chloride of iron. Direct him to "strip" his urethra after emptying his bladder; and if his urine is concentrated or irritating, instruct him to drink large quantities of some pure light water. Salol, or some other drug which is eliminated by the urine and by its antiseptic properties prevents its decomposition; may be frequently used with benefit.

The local treatment is of great importance. The first point to be determined is the presence or absence of stricture. If it be present, it should be dilated by the systematic use of large sounds. If it be absent, or if the symptoms continue after it has been removed, the case should be treated by making stimulating applications directly to the diseased area. The whole length of the urethra should be rigidly inspected with the urethroscope, and the congested spots, granular patches, or superficial ulcers, accurately located and carefully touched with a solution of nitrate of silver, the strength being varied to suit the requirements of the individual case.

Before the development of urethroscopy, urethral lesions were unrelieved because unrecognized. We live in an age of accuracy and precision, and with modern instruments have no excuse for empiric practice.

Society Reports.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

REGULAR MEETING, DECEMBER 8, 1896.

Dr. Landon B. Edwards, President, in the chair. Dr. Mark W. Peyser, Secretary and Reporter.

Dr. Stuart McGuire read a paper on

RESIDUAL URINE OF THE URETHRA. [See page 41.]

DISCUSSION.

Dr. J. W. Henson said, that there was such a thing as residual urine of the urethra, there could be no doubt, and it was a matter of considerable importance. While residual urine caused posterior urethritis, he was convinced that local posterior urethritis might and did bring about the condition of residual urine in the urethra.

The surgical posterior urethra was emptied by the rhythmical action of the levator prostatæ, compressor urethræ, accelerator urinæ, and the muscular fibres surrounding the urethra beneath the submucous coat. When there is a point of inflammation, there is, of course, some swelling; but added to this, the muscle at that point, or some of its fibres, assumes a spasmodic action, the rhythm above mentioned, is interrupted, and the deep urethra fails to be completely emptied. Question an intelligent man, and he will tell you that after passing urine that is highly concentrated, he is sometimes conscious of being unable to empty the deep urethra for ten minutes or more, when the local irritation having subsided, the same muscular effort at first used easily accomplishes the act. Now, of course, when the local irritation is continuous, as in inflammation, the spasm is longer or continuous, with retention of urine back of the irritated point. Residual urine is oftenest only a few drops, but this, by decomposition, is sufficient to greatly intensify the inflammatory action and hasten the formation of stricture. He thought it not improbable that urine was retained by the sharp bending of the urethra which occurs just in front of the scrotum when the penis is pendulous. This would occur, of course, only when the organ is replaced before being thoroughly emptied after urination.

In order to properly grasp the situation of affairs in posterior urethritis, or any urethritis of the chronic character, and intelligently treat the same, the use of the endoscope is necessary. To attempt to manage a case without this instrument, would be a much more serious blunder than treating a sore throat without inspection. Many a patient has been told he had nothing

the matter with his sexual organs, while the fact was he had, and, as a result, nearly or quite became a lunatic. The reverse is equally true. It is a serious matter. He congratulated Dr. McGuire upon his paper.

Dr. W. T. Oppenheimer agreed throughout with Dr. McGuire regarding the employment of the endoscope. The urethra was a closed tract, not admitting of air, and the folds might be seen closing behind the instrument. Minute inflammatory points as results of gonorrhœa, uric acid crystals, etc., residual pus, mucus that might be mistaken for urine, all could be found. The urethra should be fully dilated with the instrument so that ulcerations might not be hidden by the folds. The endoscope was certainly a great advance in the treatment of urethral troubles; but it must not be introduced in acute inflammations. In his experience, deep injection of a solution of atropine stopped secretions, and in the more acute forms, he used it in combination with other remedies.

Dr. Stuart McGuire, in closing the discussion, said that the paper he had read had been hurriedly written, and that it was merely intended to be suggestive. His object in reading it was to endeavor to establish a clinical fact, namely, that in certain cases of chronic posterior urethritis there was a retention of a considerable quantity of urine in the urethra, which was either the cause of the trouble, or a complication which made it difficult to cure. He dwelt upon the importance of using the urethroscope in such cases, and exhibited various electrical illuminating apparatus, and demonstrated, practically, their operation. He concluded by urging the profession to be more accurate in their work, and begged that in future they would not diagnose urethral symptoms as neuroses until by a careful examination of the entire length of the urethra they had demonstrated the fact that it was free from abnormalities.

REPORTS OF CASES.

Dr. Jacob Michaux spoke of a case treated for diphtheria, although the diagnosis was obscure, and it was some time before he was satisfied as to its nature; but he quarantined it from the beginning. The membrane on the left tonsil disappeared in a day or two, and as there were no symptoms of depression,

the patient was allowed to get up. In a week, the membrane on the right tonsil began to disappear. Monsel's solution, undiluted, was applied, marked and decided improvement resulting. The case ended in recovery. He did not claim originality for the treatment.

Dr. Arthur Jordan described a case of tinea versicolor, which was said by a former attendant to be syphilis. If there be any doubt, an examination of the scales (which could be scraped off with the finger nail) under the microscope, would show the mycelium with spores. The direct cause is purely parasitic, and is the microsporum furfur which grows in the epithelium; and the characteristic feature is the network of mycelia in which may be seen the spores. In treating the disease, he advised thorough boiling of the clothing; the application of green soap and the local use of—

R—Hydrargyri chloridi corrosivi.	gr. vj
Alcohol.	3 v
Hydrargyri ammoniatis.	gr. x
Aquæ rosæ.	3 vj.—M.

In three days the patient was well.

Dr. Oppenheimer said that it was of importance to the general practitioner to recognize skin diseases. This particular one, sometimes known as "liver spot," is quite common. If the most minute point were left, it would be the nucleus for a new growth. The spots become red after a bath, and iodine, which is good treatment, colors them brown.

In answer to a question, *Dr. Jordan* said these spots do not often appear on the face. Other diseases were xeroderma, and chloasma or leucoderma, which by the laity might also be called "liver spots."

Dr. Henson reported a case with one peculiar feature. The patient had obscure pains about the chest, and sometimes in the legs. He could make out nothing but *dyspepsia*. At times, there would suddenly occur nausea, and when the patient was about to vomit, he would sneeze, and be immediately relieved.

EFFECTS OF PAQUIN'S ANTI-TUBERCULAR SERUM.

Dr. Paulus A. Irving said about November 1st he began treat

ing Mrs. C., of Richmond, with Paquin's anti-tubercular serum, for incipient phthisis. It was a typical case, with the elevated temperature, peculiar indicative expression, flushed cheeks, brilliant eyes, night sweats, etc., but no expectoration—just the case, he thought, where, if there were any virtue in this remedy, one would expect to realize it. He began this treatment about the first of the month, beginning with five minims of the serum, and gradually increased it to twenty-five minims, giving this on November 18th. On November 20th he called to see her, and after washing her back, getting it thoroughly clean (using 1 to 2,000 bichloride solution), injected into the connective tissue opposite the dorsal region, between the scapula and the spinal column, only fifteen minims of the anti-tubercle serum, having injected twenty-five minims two days before, getting it out of the same bottle and using the same syringe, and taking every precaution as to cleanliness as he had done before. This was the twelfth injection of this serum since November 1st. The patient, as usual, was lying on a lounge. In less than half a minute she said she felt very dizzy and peculiar about her head. He told her to put her head lower, which she did. He turned and looked at her and noticed that she had a very peculiar flush on her cheeks and face, which quickly deepened in color until she was of a perfect scarlet hue, which rapidly spread all over her body. She soon became very nervous and excited, and complained of being chilly. She was put in bed as quickly as possible, given aromatic spirits of ammonia and whiskey; mustard applied to the bowels and stomach, and hot applications to the feet. Her respiration was very hurried and shallow. She had one of the severest nervous chills he ever witnessed, being unable to hold herself still. Muscular and tendinous twitching were very severe. By this time no pulse could be detected in either the wrist or the temporal region. Her face, hands and body were very hot to the touch, her feet cold. She complained of being very cold, asking that more cover be put on her. Her pupils were dilated to the fullest extent; face very much swelled, especially beneath the eyes; upper lip greatly swelled, thick and stiff; the eye-lids swelled and partly closed, and the conjunctiva injected and reddened.

The hyperæmia or scarlet hue, in about an hour, changed to

a decided purplish one. She then passed into a decided cold stage and an alarming state of collapse. By the active and free use of whiskey and ammonia, morphia sulph. $\frac{1}{8}$ gr., and nitroglycerine, $\frac{1}{100}$ grain, and mustard plasters, he succeeded in about three hours, in producing enough reaction to justify leaving her. He saw her again in the evening and the next day. She had not entirely rallied, had spent a rather sleepless night, her face was still injected and swelled, and she was confined to her bed much weakened and debilitated. It was three or four days before she was strong enough to leave bed. His object in reporting the case was not to throw any discredit on the serum treatment, but that others knowing the distressing symptoms sometimes produced by this serum might profit by his most trying experience, and to ask for an explanation of this condition. What produced this chain of symptoms? The serum was the same he had been using for the last month, and it was kept tightly sealed in a dark, cool room. The specimen was prepared in September.

The lesson that he drew from this case was that as we (general practitioners) have no facilities for testing the purity of these articles when first purchased, or after they have been opened and used for a while, we had better go slowly in accepting and using them. He thinks the profession should decline to use these secret remedies, for in employing them, it endorsed them.

Dr. Virginius W. Harrison reported a case of tuberculosis in which he had used Paquin's serum thirty-five times, commencing with fifteen and gradually increasing to forty-five minims. At the time of the twenty-eighth or thirtieth injection, the kidneys becoming troublesome, the amount was reduced to fifteen minims, and again gradually increased, this time to twenty-five minims, when the bladder and kidneys again became irritated. The desire to urinate was constant. At the injection previous to the last, the patient complained of tingling in one of his arms, and on the day following, and continuing for three days, he had no use of it. The serum was discontinued; but ten days before this, the whole surface of the body broke out in wheals. He was particular in washing out the syringe before using the injection. Dr. Harrison said he failed to see any benefit aris-

ing from the serum. Simultaneously with its employment, hypophosphites and creosote were administered.

Dr. Wm. S. Gordon began by remarking that *Dr. Paquin* had stated that no bad effects had ever followed the use of his serum. The case he was about to report had had pulmonary hemorrhages. He began with the injection of five minims, increasing the dose one drop daily. The patient became no better, but on the other hand, the slight hectic he had developed after twenty minims had been reached, into a high fever, and there was general malaise. So the treatment was discontinued, and the patient improved. It was then resumed, the patient again declining; fever rising, etc. Discontinuing the use of the serum, he was put on regular treatment, and since that time his condition has improved. How far the bad effects were due to a deteriorated serum, *Dr. Gordon* doesn't know, but if it were of bad quality, there would have been cellulitis at the sight of injection. In closing, he made the point that the method of manufacture of the agent had never been completely disclosed.

The *President*, after calling Vice President *Dr. Oppenheimer*, to the chair, remarked that on several occasions, in three of his own patients, he had observed effects that might be spoken of as apnœac attacks—very much like those spoken of by *Drs. Irving* and *Harrison*. In a minute or so after injections, the patients complain of peculiar dizzy sensations, suffocative breathing, the face becomes intensely red, and this gradually passes off into a reddish purplish hue of the upper part of the bodies, with tingling sensations creeping over the body, reaching even to the toes and fingers, with numbness extending from the head down until it reaches an ascending feeling of a like kind coming from the extremities. During this period, the patient becomes anxious, developing a trembling of the body generally; and then the radial pulse, scarcely affected until now, becomes rapid, small, and approaching a thread-like feeling. Gradually, the symptoms pass off, and, as a rule, all unpleasant effects are gone in fifteen to twenty minutes. On one or two occasions, however, one of the patients had moderate suffocative asphyxial attacks of a few minutes' duration, occurring within the first hour or two after the injections. In none of the cases reported, however alarming the symptoms appeared to be, did any fatality occur.

The usual care had been taken in each case to keep the bottles of serum in equally cool, dark places, and the serum was from bottles freshly received from the manufacturer's laboratory. Aseptic and antiseptic precautions were carefully followed out in administration in each case.

Here, then, we have five cases of very unpleasant immediate effects of the administration of antitubercle serum which have led Drs. Irving and Harrison to give up its use in each of their cases; but have not deterred the speaker from continuing its use in his cases—because it has appeared to him that “everlastingly sticking at it, brings success” in the relief of conditions that will surely prove fatal unless something can be done to check the growth of tubercles. Serum will rarely fail; tuberculosis unchecked by serum surely will. In the interests of his patients, as well as of therapeutic science, he will ever take the lesser risk.

These cases led Dr. Edwards to ask Dr. Paquin for explanation, and from him, under date of November 28, 1896, he received a very full letter from which the following is condensed:

In the directions that accompany every bottle, this very occurrence is mentioned as a possibility. In experiments with every kind of serum brought out for the treatment of specific maladies, as diphtheria, tuberculosis, tetanus, erysipelas, streptococcus infection, etc., each of them may produce sudden flushing of the face, dyspnœa, some nervous effects, etc. The experience of other scientists has been the same; but none of them can explain the reason. It seems, however, that horse blood serum is more liable to produce these peculiar effects than the serum of a dog or some other animal when introduced into man's system. For a long time, his laboratory workers have been trying to disassociate the various elements of the serum to find which one or what combination of them produces the effects spoken of. One conclusion arrived at, is that they are *never* due to septic material produced by bacteriological contamination or changes in the serum; for they have been produced by serum perfectly fresh—just drawn from the animal—filtered through a Pasteur-Chamberland bougie. If due at all to any special element that exists in the serum at any time, it must be some substance in the economy of the animal from

which the blood is drawn, the nature of which we do not yet understand.

None of these accidents, however (in a record of over 80,000 injections of serum with perhaps 50 reports of the kind referred to—Dr. Paquin himself having noticed them several times) have resulted seriously; they have all passed away in a short time. One of his patients, who receives about 60 minims every other day, gets these same results every week. A salt solution, when given hypodermically, will occasionally produce the same thing; so that he rather inclines to the opinion that it is the amount or quality of salt in the serum that causes the trouble.

However, this whole trouble can be avoided absolutely. When a patient is so susceptible to the use of the serum by hypodermic medication, then it should be administered by rectal injections—giving sometimes the maximum dose of 60 minims, diluted in about the same quantity of tepid water or natural salt solution, making the injections in the evening on retiring. Use a simple enema to wash out the bowel before the injection of the serum. Dr. Paquin has placed a number of patients on this plan of treatment exclusively, and has so far succeeded about as well as by hypodermic medication.

From numerous observations, Dr. Paquin is thoroughly convinced that the serums of various kinds that produce these effects are not necessarily infectious. The preservative (four per cent. trikresol) is sufficient to prevent the development of germs in the bottled serum. Of course, serum accidentally contaminated by air germs or germs introduced by the syringe might, at the proper time, be capable of developing a culture in a test-tube; but such quantity of air-germs is usually harmless. Possibly, a simple local abscess—such as occurs sometimes after morphine injections—may follow one of a thousand injections of serum. Not a drop of serum leaves the laboratory that does not come from an output that has been tested both microscopically and bacteriologically, and also in small animals and human beings. In fact, it seems impossible for the Paquin serums to be contaminated; because they are gathered with the greatest possible aseptic precautions, which exclude every germ, as above explained.

Of the millions of injections made of *serums of all kinds*, there

have not been over a half dozen deaths reported from this form of medication; and at least three of these deaths appeared to be due to some other cause. So, after all, the untoward symptoms mentioned as sometimes occurring after serum injections, are more alarming than dangerous—although, of course, they must in time be eliminated.

Experiments conducted with anti-streptococcus serum and anti-tubercle serum combined, and alternately, have given most gratifying results; and Dr. Paquin suggests that hereafter, in cases of mixed infection, we use the anti-streptococcus serum, as, after pus has disappeared, the field for the action of tubercle antitoxin is clearer, and the results so far obtained are most encouraging.

It will thus be seen that no effort is made by Dr. Paquin to deny that alarming immediate effects may follow the hypodermic use of antitubercle serum; but up to the present time no fatality nor *permanènt* injury has resulted. It is right also to state for Dr. Paquin that his antitubercle serum should not be classed as a "secret remedy."

But suppose that here and there a fatality followed its use, is that any reason why we should not continue its administration until something better can be found, provided clinical observations and experiences prove it a valuable adjuvant to other established treatments of tubercular phthisis? What would we think of the surgeon who would deny to his patient a resort to laparotomy, under judicious circumstances, simply because some deaths are clearly attributable to the operation itself? Serum therapy is in its infancy. Its possibilities are already well proven in the wonderful records of cures of diphtheria by antitoxin. That serum seems already to have been perfected. Antitubercle serum is as yet not so thoroughly perfected; but progress is being constantly made in the direction of a perfected product. In its present state, no one recommends it as a substitute for other agents, proven to be useful, but it is a valuable *addition* to the therapy of tuberculosis.

During the past twelve months, the speaker has treated some 23 cases of pulmonary tuberculosis—many of the cases being at the Virginia Hospital, where most of the doctors present have seen the patients. Of the number, he has had three deaths;

but each of these patients was so far advanced in the last stage of the disease—as recognized by the doctors who referred the cases—that there was no hope even of materially prolonging their lives. The cases were hopeless from the moment they first came under treatment; and there is one other such case on whom the antitubercle serum treatment is being used rather as a satisfaction to the wishes of the patient than because there is any hope that it or anything else can save him.

This leaves 19 cases that are now living—3, or perhaps 4, are thoroughly recovered so far as any evidence of disease is concerned; 6 or 7 are so nearly recovered that they think themselves well, and, at their own risk, have practically discontinued serum treatment; 1 case has been lost sight of, as he went to Washington City, where the serum treatment was continued, and then moved to Texas in an improved state of health; in 3 or 4 cases, the disease seems to be held in check, but without perceptible advancement toward a cure; the remaining cases are under daily treatment, and it is too soon to formulate an exact prognosis, except as to one case that is evidently fast recovering. Creosote (beechwood) in capsules, by constant inhalation, in the form of Hancock's compound creosote mixture, etc., are among the chief agents employed in treatment beside the hypodermics of antitubercle serum. Of course all else that is found helpful in individual cases is adopted. Until antitubercle serum was begun, a year ago, the other agents he now employs were used; but no such general good resulted to so many. With such a record, then, the speaker is thoroughly convinced that in Paquin's antitubercle serum we have a valuable adjuvant in the treatment of pulmonary tuberculosis; and although he has patients who now and then show the unpleasant, even alarming effects, spoken of, he sees no more reason for discontinuing the use of the serum treatment than would the surgeon feel with reference to an approved operation, because now and then he has to deal with an unusually serious, bloody or painful one.

Dr. C. R. Robins has used antitubercle serum in two cases. One being almost moribund when first seen, no improvement could be expected. The second case had had tuberculosis six months when he was called to attend it. There had been hem-

orrhages, the left lung was consolidated, and evening temperature 101.4° . The first injection was five minims of the serum, and it was increased five minims daily until twenty-five were reached. At this time, the patient was on the fourth bottle, and the cough has diminished, sputum has become frothy and light as in bronchitis, and the temperature has been normal for the past four weeks. There were no bad symptoms from the treatment, except swelling and pain of the axillary glands before the first bottle was finished. Pain has disappeared. The patient did not increase in weight. All collateral treatment was cut off.

Dr. Gordon, replying to *Dr. Edwards*, said in the case he reported, the fever was disproportionate, and when the serum was discontinued, it fell, rising again as on its resumption. When stopped the second time, the patient began to improve, and has continued to do so. Referring to *Dr. Paquin's* statement as to harm resulting from even simple saline solutions, *Dr. Gordon* said a pint or a quart could be injected without effect, and that it was done in every day practice. Regarding *Dr. Edwards'* cases, it must be remembered that he has given other remedies in the accepted line of anti-tubercular treatment, and the question is: "How far the improvements were due to them?"

HEREDITY OF CANCER.

Manichon (Journ. de Med.,) discusses the question of heredity in cancer. He bases his observations on 23 families observed by himself, in which several members were affected. In these 23 families there were 69 cases of cancer, distributed as follows: 57 in the stomach, 4 in the uterus, 3 in the breast, 3 in the rectum, 1 in the bladder, 1 in the liver. Of the 57 cases occurring in the stomach, 41 were in males, 16 in females. In 11 families the heredity was exclusively in the male line, in 5 in the female; in 6 families both sexes were equally affected. Moreover, 14 out of 22 families showed cancer in the stomach, and of these the males were affected in 8. It appears, therefore, from this paper that heredity in cancer should be no longer doubtful. The author also points out that the special form of cancer is itself hereditary.—*Br. Med. Journ.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

DIPHTHERIA ANTITOXIN INVESTIGATION.

The great success attending the use of antitoxin in the treatment of diphtheria has induced many manufacturers to produce a preparation of their own make. In this way there occurs a great variation in the strength of different preparations as indicated by the number of immunizing units contained in each cubic centimetre of the serum. This variation has, no doubt, much to do with the difference in results obtained by various observers. In a method of treatment that is so rational and so potent as serum-therapy accuracy of dosage is very important, but this cannot be attained unless there be some method adopted by the manufacturers for designating the actual immunizing value of each preparation, and have this noted upon the label of the bottle containing the serum.

The *Medical News* has recently published the results of an investigation of nineteen samples of serum, purchased in the open markets of several cities. These samples represented the

products of nine different manufacturers. The investigation was made on the request of the *Medical News*, by Professor A. C. Abbott, of the University of Pennsylvania, which is sufficient assurance that every precaution was taken to secure accurate and reliable results. That there might be no possibility of prejudice on the part of the investigator, the labels were removed from the bottles, the bottles numbered and a corresponding number placed upon the removed label. The tests were made by ascertaining the minimum dose of toxin that would be fatal to a guinea pig of a certain weight. Then ten times this amount of toxin is placed in a test-tube, and a sufficient amount of the serum to be tested added to so neutralize the toxin, that the whole amount injected into a guinea-pig of the same weight as the control pig, will not destroy it. The antitoxic value is based upon the standard of Ehrlich, Kossel, and Wassermann, viz., a serum of such strength that one-tenth c.cm., fully protects a guinea-pig against ten times the minimum fatal dose of diphtheria toxin is a "normal serum," and one cubic centimetre of such a serum contains one "immunizing unit." Therefore, if the serum is so concentrated that 1-100 of a c.c., instead of 1-10 protects the pig against ten times the fatal dose, that serum is said to contain ten immunizing units to the c.c.; if it required only 1-150 c.c. to protect it would contain 15 immunizing units to the c.c.; if only 1-200 c.c. were required the serum would contain 20 immunizing units.

The nineteen samples varied all the way from 350 immunizing units to the c.c. to less than 20. There was great variation in many cases between the real value of the serum and that claimed on the label; in one instance the label claimed 50 immunizing units to the c.c., while the test showed 350; in two claiming 100 units each, there were 150 and 200 respectively; in one claiming 600 total units in the package there were 3185; in one claiming 1000 total units there were less than 72; in one claiming 1500 there were less than 410; in two samples coming from the same laboratory and bearing the same date one contained more than twice the immunizing strength of the other, and more than twice the total number of units.

These tests show the importance of having placed upon each package the immunizing value of the serum with the date of pack-

ing; but even then there will be variations for, while some serums keep their value absolutely for several months, others gradually deteriorate until their value may be reduced to one-third of the original. It will be noticed that while some of the samples fell below the value claimed a larger proportion went above the claimed value. This is probably due to the fact that some manufacturers try to make allowance for the expected deterioration of the serum, but while excessive doses of antitoxin appear to be innocuous, it were better that the administrator should know just how much the patient is receiving. Some manufacturers simply state upon the label the dose to be given without stating the value.

We congratulate the *News* upon its enterprise in inaugurating this investigation, and hope that it will stimulate the manufacturers, whose preparations varied so widely from their claims, to use better methods for the preservation of the antitoxin or a more accurate method for estimating its value. As to the benefit that the profession is to derive from the investigation directly, there seems to be but little while the preparations which were so poor in immunizing value as to be nearly worthless remain undesignated. A reason is furnished, however, for the failure of some observers to get satisfactory results from the use of antitoxin.

DOCTOR ZERTUCHA.

The *Tri-State Medical Journal* has the following editorial comments to make on the death of the Cuban insurgent leader, General Maceo. If the report that Dr. Zertucha proved a traitor to his trust is true, his condemnation could not be too great, but all items of news from Cuba are so unreliable, on account of both sides trying to influence American opinion, that we are led to hope that this tale is not founded on fact:

"It has devolved upon the Cuban war to produce the first example of a physician willing to sell out the life of his patient for \$200,000. This transaction is not at all flattering to the

profession, except as it emphasizes the fact of its rarity. We cannot let it pass without comment. The fact is that Spain has never got out of the fifteenth century—although we very much doubt if, even in that dark age, the act of Doctor Zertucha would have been considered meritorious. That military rulers, inured to war and its necessities and expediences, should be cruel and, perhaps, blood-thirsty is not so strange; that they should have a light regard for human life is not wonderful. Passion, anger and the humiliation of constant defeat might dull the sense of morality; but that a man whose education has been on scientific lines, whose constant life has been devoted to humane acts (as supposed), who belongs to a profession noted for bringing into use the redcross service, and has done more to abate the horrors of war than all other men or professions put together—that such a man should prove a traitor to humanity, should countenance the dishonoring of a flag of truce and the delivering of his patient over to foul murder, is almost incredible. At it we begin to loose faith in education as a humanizing agent. We shall be glad to know that Dr. Zertucha is but a quack and charlatan, and look forward eagerly to the day when such information shall be forthcoming. If it is not forthcoming soon, the act of Dr. Zertucha will be the first of its kind perpetrated by a reputable medical man. We should put on sack-cloth, sprinkle ourselves with ashes, and take a solemn oath of eternal abhorrence of Spain, her odious wars and damnable science.”

BELLEVUE HOSPITAL MEDICAL COLLEGE.

A grave error occurred in the advertisement of this school which was published in the last issue. Through an error due to haste on the part of the compositor in preparing the advertisement for the press, the old advertisement of last year appeared simply with the dates changed, instead of following closely the new copy that was sent. As it appeared the advertisement reads that attendance upon three regular courses will

be required for graduation, whereas, attendance upon *four courses* are now required by this school. This college has always stood in the front rank among the medical schools of the country, and was one of the first to take the advanced stand of requiring a four years' course. We call attention to the new advertisement as it appears in this issue.

Reviews and Book Notices.

Reference-book of Practical Therapeutics. By various authors. Edited by Frank P. Foster, M. D., Editor of the "New York Medical Journal," and of "Foster's Encyclopædic Medical Dictionary." In two volumes. Vol. I. Cloth, royal octavo, p. 652. D. Appleton & Co., New York, 1896.

The editor states in the preface that "the leading idea in the preparation of this work has been to make it preeminently serviceable to the physician." The editor's main work in the preparation of the book, besides that of planning it and selecting the authors, has been to furnish the minor articles, together with some additional paragraphs which include summaries of observations that have appeared since the original articles were written.

Among the contributors to this volume are numbered such well-known teachers and practitioners as Russell H. Nevins, Charles Jewett, Edward R. Palmer, Samuel O. L. Potter, Charles Rice, George H. Rohé, D. E. Salmon, John A. Wyeth, Solomon Solis-Cohen, George Dock, and others to the number of thirty-two.

The therapeutic agents discussed are arranged alphabetically, each item being signed by its author. There are many drugs which are not mentioned, the editor assigning for their omission the fact that many have fallen into absolute disuse, others are used only in far-distant countries, and others have been so recently brought forward that their true value has not been established. The application of drugs and other agents to the treatment of disease is carefully studied and in most cases the deductions are made from the author's personal experience. The

book will fulfill the editor's purpose by being eminently serviceable to the practicing physician. It will be supplied with a carefully arranged index of diseases, and also of remedies, notwithstanding the alphabetical arrangement in the body of the work, for the reason that drugs are often mentioned in other places than under their own headings.

It is interesting to note the opinion of some of the authors on subjects that have been often under discussion. Dr. B. F. Westbrook closes an article on alcohol by the following answer to the question. *Is alcohol a food?* "We must in the present state of physiological science, answer now qualifiedly in the affirmative. Those physiological chemists who have succeeded in recovering pure alcohol from the blood, secretions or exhalations of men or animals to whom it has been given have never recovered but a small proportion of it. It also unquestionably retards the waste of tissue, and this directly apart from its action upon the nervous system. This does not, however, in any way detract from the dangers of its consumption, though justifying still further its employment in disease." Dr. Henry A. Griffin writing of the uses of acetanilid, says the impression, unfortunately deep-rooted, that *fever* is an enemy to be met and vigorously attacked * * * has been the cause of innumerable therapeutic blunders and of incalculable harm."

Correspondence.

THOUGHTS ON ANTITOXIN.

Editor North Carolina Medical Journal :

Antitoxin has now been employed in the treatment of diphtheria less than three years, its introduction to this field having been made February 1, 1894. This date is destined to rank very high in the list of important dates in Medical Science. It marks the time when diphtheria antitoxin was promoted from the realms of the purely experimental to the wards of disease

and to the human system—from the laboratory to the Hospital Enfants de Malides in the City of Paris.

Great discoveries have ever marked the strides of human progress. Columbus discovered America—that is, he stumbled upon it while searching for a new route to the East Indies. Isaac Newton discovered the law of gravitation—that is, with pencil and paper and a superior mathematic ability, he figured out its existence and its vast importance in the economy of a mighty system of worlds. Jenner discovered the immunizing value of vaccine inoculations—that is, his keen observation detected a potency in cow pox, which, while he could not understand its nature nor its action, he dared to champion in the face of a sneering world. It was not his lot to live to see his discovery widely adopted, but his posterity have long since witnessed nation vying with nation for the honor of giving him nativity, while the centennial anniversary recently celebrated to his honor, could be merited only by one of earth's greatest benefactors.

Behring discovered Antitoxin—that is, finding a co-related major and minor premise unimpeachably established he resorted to logic for his conclusion or discovery—Antitoxin. Antitoxin is a child of pure science and is born of logic. It differs from the average of discoveries in that it is the correct answer to a scientific problem worked out with mathematical accuracy. In this lies the secret of the marvellous rise of Antitoxin into popular favor. Introduced less than three years ago, yet millions of injections of antitoxin, immunizing and curative, have been made. Every portion of the civilized world has heartily volunteered to help swell the reports of cases treated by it.

It is this accuracy by which Behring reached Nature's own and ancient remedy from the onslaught of the Klebs-Loeffler bacillus that insured the prompt reception on the part of the medical profession afforded this newest and most unique of the thousands of additions made in recent years to our already long list of remedial agents. Behring's conclusions bear the stamp of logic, while his claims are clearly and accurately defined. All this inspires confidence. Clearness of vision on the part of its founder and confidence on the side of the physician have done all to place Antitoxin in this brief space upon the plane of

eminence which vaccine inoculations, without these, struggled sorely for half a century to reach.

In no remedy ever advanced for the treatment of disease are the results more marked and the effects more constant than in Antitoxin. The claims established in the laboratory and ticketed upon it when it was enlisted in the service of man are still made and realized to-day. They have not been abridged nor supplemented. The prudent physician knows these claims and makes no others for the Antitoxin he uses; neither does he lay to its charge effects it is powerless in itself to produce.

Its effects are strictly limited to the bacillus diphtheriæ and its toxins. As these are favorably acted upon the symptoms following in their trail will be promptly ameliorated. Deposited by the needle into the cellular tissue of the victim of typical diphtheria, the antitoxin rapidly goes to bathe every cell of the body. Thus it neutralizes the depressant toxins in the system, the effect of which is to cool the fever and calm the heart. It invades the home of the bacilli carrying with it death and expulsion. The result of this is that the false membrane loses its vitality. It is seen to grow pale while it is gradually detached and expectorated. It is here the physician can best observe the effects of antitoxine and always finds the highest source of gratification from its use.

That antitoxin has its enemies is not to be marvelled at. It would be surprising were it otherwise. The enemies of antitoxin, ninety per cent. of them, are physicians who have never used it, while the remaining ten per cent. have, to say the least, never used a reliable preparation. What was ever advanced of true merit that met no opposition? It was not aseptic surgery, the clinical thermometer, the hypodermic needle, anæsthesia or vaccination. These still find opponents and probably always will.

That the injection of antitoxin in so large a number of instances should have been followed in a few cases by fatal results due apparently to the antitoxin used, should not startle us. In view of our experience with the use of the hypodermic needle for other purposes than the injection of antitoxin, or with the use of anæsthetics, or in anything in life aside from the barest of routine, would it not be passing strange were it otherwise?

Who rises to abrogate the use of anæsthetics simply because fatal cases are recorded? Fatal results have followed the eating of an ordinary meal, yet nobody would abolish dining. Not even Dr. Tanner was entirely willing for that. Instances are recorded in which grief rose to a sudden fatal issue on the day of burial, yet funerals are not prohibited.

But we must not outrun ourselves. Antitoxin as applied to the prevention and treatment of diphtheria has already prohibited thousands of funerals. It is specific in this dread malady and is here to stay.

JACOB R. JOHNS, M. D.

1940 S. 12th Street,
Philadelphia, Pa.

Abstracts.

DEATH FROM CHLOROFORM.—Mr. A. M. Watts, (*British Med. Jour.*,) reports a death from chloroform in the person of a girl twelve years of age. She had been anæsthetized on two former occasions, once for diagnosis and again for operation for psoas abscess. On one of these occasions chloroform was used and on the other ether. The third occasion was for the relief of a cicatrix caused by a burn on one eye lid, which prevented the closing of the eye. Not more than five drachms of chloroform was used. It was administered on a fold of lint, and the child was never deeply under its influence. At the end of ten minutes, and when the operation was practically completed, her pulse was felt to stop, she then took a few slow, sighing respirations, and ceased to breathe. All efforts at resuscitation, including lowering of the head, artificial respiration, opening of the trachea, and the injection of brandy, ether and strychnine, proved unavailing.

ABORTIVE TREATMENT OF ACUTE SUPPURATIVE ADENITIS OF THE GROIN BY PRESSURE BANDAGE.—Gaether (*Johns Hopkins Bulletin*) has reported unusual success in the abortion of inguinal buboes by the use of the pressure bandage. He has used

the method in eighteen cases, four of which were practically in the operative stage. If suppuration is not so far advanced as to bring the case practically to the operative stage, a piece of cotton as large as the fist is folded on itself again and again, until it has the shape of the bubo, and when placed upon it does not completely cover it. This is carefully adjusted and a wad of tightly compressed cotton as large as a cocoanut is placed over it. Small pieces of cotton are used on the inner and outer surfaces of the thigh to prevent chafing. A very tight spica bandage is then put on. The pain was considerably relieved in most cases; but in two cases the bandage could not be worn more than two hours at a time. He leaves out of account the four that had advanced too far to expect benefit, and the two in which the treatment could not be applied continuously. Of the other twelve cases the bubo was aborted in nine. The treatment gives better results in proportion as it is applied early in the disease.

INSUFFICIENCY OF THE BACTERIOLOGICAL DIAGNOSIS OF DIPHTHERIA.—Sponck (*Sem. Med.*) points out that although a bacteriological diagnosis of diphtheria is very easily and certainly arrived at, nevertheless cases exist in which bacteriologists disagree. Cultivation on serum, followed by microscopic examination, shows that there are three varieties of the diphtheria bacillus. On serum these are differentiated only by size; the short bacillus, however, closely resembles the pseudo-diphtheria bacillus described by German authors. As regards virulence the short bacillus is regarded as extremely benign, the intermediate as less so, and the long bacillus as the most toxic of all. It might be thought that the small bacillus described by French writers was identical with the pseudo-bacillus of German authorities, but doubt is thrown on this by the results of experiments on guinea pigs. Though benign, the small bacilli in cases under observation differed in their degree of benignity, though none of the animals affected died. The cultures used were in all cases pure. To determine whether or not two pathogenic specimens were true diphtheria bacilli recourse was had to antidiphtheria serum. If the true diphtheria bacillus had been present, this should have been capable of protecting a

guinea pig from ill-effects. This was not found to be the case. Spronck concludes that there exists a pseudo-diphtheria bacillus, which is pathogenic to guinea pigs, hitherto unknown or mistaken for the short bacillus. Researches on the but slightly pathogenic pseudo-diphtheria bacillus showed that in time the cultures lost their virulence, and when spontaneously attenuated could not be distinguished from Von Hoffmann's pseudo-diphtheria bacillus. This proves that the relationship said to exist between the latter and the diphtheria bacillus cannot be admitted without reservation. Probably Von Hoffmann's bacillus is derived sometimes from the true diphtheria bacillus, at other times from a slightly virulent pseudo-diphtheria bacillus. It seems justifiable to think that microscopic examination of the colonies is inadequate, and it is necessary to control the diagnosis by the experimental use of antidiphtheritic serum.—*British Med. Jour.*

FULMINATING APPENDICITIS.—Dr. Howard Crutcher, (*International Jour. Surg.*,) has collected the opinions of a number of prominent surgeons in regard to the probability of foretelling a perforation of a gangrenous appendix, and as to the results in fulminating appendicitis. He defines fulminating appendicitis to mean that condition where a more or less gangrenous vermiform process ruptures and permits infectious elements to escape into an unprotected peritoneal cavity. From the expressions of these gentlemen and his own experience he draws the following conclusions:

Pain.—If violent, sudden and persistent, it indicates probable seriousness of the attack, but indicates nothing as to the natural defenses for limiting infection. On the contrary, absence of pain is undecisive between gangrene and resolution.

Pulse and Temperature.—While a rapid pulse and high temperature favor the destructive process, their absence is no assurance of recovery. Referring to this, Tyson remarks that *too much stress cannot be laid upon the fact that there may be gangrenous appendicitis in the presence of normal temperature.*

Shock.—The presence of shock, if undoubted, is a very grave symptom, generally indicating perforation. On the contrary, the most deadly attacks often occur without it.

Sensitiveness.—If persistent and highly developed, generally indicates destructive inflammation, but gives no clue concerning the limitations of infection.

The Expression.—Of no material value before the development of grave conditions.

Perforation.—This can no more be foretold than the perforation of typhoid or the rupture of an aneurism.

My own practice is to save the patient first, by operating upon non-septic tissues, if possible, and to argue the case afterward.

Therapeutic Hints.

DIPHTHERIA.—

℞. Potassium chlorate, . . . ʒ ss.
 Lime water, . . . ʒ vj.
 Decoction of marsh mallow, . ʒ xxv.

M. Sig. Use (every hour or two hours) a few spoonfuls are diluted with three or four times as much hot water.

Neumayer claims by using this solution in gargling, irrigating and swabbing, to have treated 977 cases of diphtheria with only six deaths, a mortality of 0.6 per cent.—*Med. News.*

AN OINTMENT FOR MUMPS.—According to the *Journal des Praticiens*, Tranchet recommends the following:

℞. Ichthyol,
 Iodide of lead, of each, 45 grains;
 Chloride of ammonium, 30 grains;
 Lard, 1 ounce.

This ointment is to be applied to the swollen parts three times a day. In some instances vaselin may be used in place of the lard, and sometimes belladonna may be added with advantage.—*Therap. Gaz.*

GRUEL FOR INVALIDS.—There is gruel and gruel—the white creamy sort often becoming so popular with the occupant of the sick room that it is continued at bedtime—after the return to

health, it being an excellent "nightcap," and will, after a few weeks' use, give roundness to thin cheeks and gaunt throat. To make it, have ready in the double boiler a pint of boiling milk, salt to taste, then sprinkle in while stirring, two tablespoonfuls of oatmeal; allow it to keep at boiling point for an hour, then strain and add a wineglassful of cream. Flavor with wine or brandy if allowed. Judgment must be used as to consistency; if liked thicker or thinner, use the meal accordingly. If milk is not allowed water may be substituted and the gruel may be varied with barley, Indian meal, graham flour and the various cereals; oatmeal, however, is the gruel par excellence.—*The Nursing World*.

A MIXTURE FOR THE INSOMNIA OF NEURASTHENIA.—We find this formula in the *Presse medicale*:

R. Chloral formamidate, } each . . . 1 part;
 Tincture of ginger, }
 Mint water, ... 15 parts.

M. S.: A tablespoonful to be taken at the time of going to bed.

IODOL IN THE TREATMENT OF ATONIC ULCERS.—The *Presse medicale* gives the following formula for an ointment:

R. Iodol, ... 2 parts.
 Vaseline, }
 Lanoline, } each 10 "

M. To be spread thin on aseptic lint and applied.

NECROLOGY.

Professor William H. Pancoast, aged 64, in Philadelphia, January 4, 1897. Dr. Pancoast was a distinguished physician and surgeon. He was the son of the great surgeon, Joseph Pancoast, and was born in Philadelphia. He graduated from Jefferson Medical College in 1856. He became a professor in Jefferson College in 1874 and in the Philadelphia Medico-Chirurgical College in 1886.

Dr. Theodore G. Wormley, aged 70, in Philadelphia January 3, 1897. He was professor of chemistry and toxicology in the medical department of the University of Pennsylvania.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

MARINE HOSPITAL SERVICE—For the 15 days ended December 31, 1896:

Wasdin, Eugene, passed assistant surgeon, granted leave of absence for three days from January 1, 1897, December 22, 1896.

White, J. H., passed assistant surgeon, directed to inspect unserviceable property at Stapleton, S. I., N. Y., December 29, 1896.

Magruder, G. M., passed assistant surgeon, granted leave of absence for nine days from December 23, 1896.

Stewart, W. J. S., passed assistant surgeon, to proceed from Washington, D. C., to Colonial Beach, Va., on special temporary duty, December 26, 1896.

THE NAVY.—December 28.—Assistant Surgeon L. Morris, ordered to the "Essex".

December 29.—Passed Assistant Surgeon A. R. Wentworth, detached from Naval Hospital, Portsmouth, N. H., on relief and ordered to the "Marblehead".

Surgeon F. H. Green, detached from the "Marblehead" on reporting of relief and ordered to naval dispensary at Washington, D. C.

Passed Assistant Surgeon H. B. Fitts, ordered to naval hospital, Portsmouth, N. H.

December 30.—Surgeon A. C. H. Russell, detached from the Naval Medical Examining Board, New York, on relief and hold himself in readiness for the "Lancaster".

Surgeon J. M. Edgar, detached from the "Saratoga" and ordered to the "Vermont".

Surgeon H. Wells, detached from the "Vermont" on relief and ordered as member of Naval Examining Board, New York.

Passed Assistant Surgeon W. C. Braisted, detached from the "Columbia" and ordered to the Naval Hospital, Newport, R. I.

THE ARMY.—Major William R. Hall, surgeon, relieved from duty at Whipple Barracks, Ariz., and ordered to Washington, D. C., for duty.

1st Lieutenant Irving W. Rand, assistant surgeon, relieved from duty at Fort Clark, Texas, and ordered to Fort Huachuca, Ariz., for duty.

1st Lieutenant Alexander S. Porter, assistant surgeon, relieved from duty at Fort Huachuca and ordered to Whipple Barracks, Ariz.

The leave of absence on surgeon's certificate of disability granted Major William C. Shannon, surgeon, is extended three months on surgeons certificate of disability, Fort Custer, Mont.

The leave of absence granted Captain William L. Kneedles, assistant surgeon, for seven days, San Diego Barracks, Cal., is extended twenty-three days.

Miscellaneous Items.

PERHAPS A MISPRINT.—The local paper, speaking of a street accident, said: "Dr. Jones was quickly summoned, who, after examining the patient's purse, decided that the case was hopeless."—*Ex.*

A peerage has been bestowed upon Sir Joseph Lister and he is said to be the first medical practitioner called to the House of Lords.

On December 1st, eight boys were bitten by a rabid dog at Baltimore, and went to the Pasteur Institute, in New York, for treatment. The press dispatches of January 5, announce the death of four of the number.

The New York Polyclinic School and Hospital was destroyed by fire on Christmas morning. The sixty patients, upon many of whom serious operations had been performed, were safely removed.

The Secretary of the State Board of Health, Dr. Benjamin F. Lee, reports that 338 cases of diphtheria occurred in Philadelphia during December, with 98 deaths, a mortality of 29 per cent. A high death-rate if antitoxin is used.

A VAST PILL BUSINESS.—We note an item among other interesting bits of news transmitted by the news gatherers of the daily press, that the business of a certain patent-pill nostrum in New York city, was sold to an English syndicate for \$2,000,000! The former manager of this pill factory, we are informed, is to be retained for five years by the new company at an annual salary of \$50,000! "*O dura Messorum ilia.*"—*Jour. Amer. Medical Association.*

A FÆTUS STABBED.—A woman, six months pregnant, was stabbed twice, both wounds penetrating the abdominal cavity; and as there were signs of internal hæmorrhage, laparotomy was immediately performed. The uterus was found to have been perforated in two places by the knife, and the wounds were closed by sutures, the hæmorrhage being thus checked and the immediate danger removed. The patient progressed very well until the third day, when severe pains came on, and on the next day an abortion took place, from which she completely recovered. The fœtus was dead, and on examination it was found that one stab had penetrated the left side of its chest, and another had wounded the small intestine in two places, purulent peritonitis having thus been set up. The case is unique, and the fact that peritonitis from the intestinal wound was caused in a six months' fœtus is a clinical fact of great interest.—*Nursing Record*.

A TOWN ENSLAVED BY THE COCAINE HABIT.—It is reported in the daily papers that so large a number of the inhabitants of the town of Manchester, Conn., have become slaves to the cocaine habit, that in the opinion of an "experienced physician," "the future prosperity of the town is involved." The trouble arose from a preparation of cocaine and menthol which a druggist in the town compounded about a year ago, and exploited as a remedy for asthma. So popular has this "snuff" become that people are seen in the streets and in dark corners at public entertainments indulging their passion for the compound. According to the report, the druggists, although getting rich by the sale of the compound, are so bothered by "well-known men and women" who ring them up at all hours of the night to obtain a supply, threatening to break into the store if their wants are not attended to, that they have become prime movers in an attempt to check the evil habit. Large numbers of the people are apparently running into debt to provide themselves with this expensive drug and, if the story is true, we must acquiesce in the reported remark of a druggist, who says, "their condition is pitiable." A drug habit which will drive "well-known men and women" to threaten violent entrance into drug stores must be indeed a difficult problem for the town authorities to cope with.—*Boston Med. and Surg. Jour.*

Reading Notices.

A CASE OF CHRONIC PLEURISY WITH EFFUSION TREATED WITH PROTONUCLEIN.—On June 2d of this year, a lady came into my office in a greatly disturbed state of mind, telling me that she had suffered from an attack of pleurisy since March 1st.

She was very thin, having lost ten pounds or more, and complained of severe pain at the base of her right lung, when she took more than a shallow inspiration. Her temperature was 100.5° F., and, to use her own expression, she felt "altogether miserable."

On examination there were evidences of adhesions at the base of the right lung, also indications of a small amount of fluid which I suspected would be pus. However, the exploring needle proved it to be of a serious nature, slightly cloudy, due to the presence of a few pus cells. The following treatment was outlined, and, I am happy to say, was faithfully executed:

Protonuclein tablets, three grains (Reed and Carnrick), half an hour before meals and at bedtime, subsequently increased to five tablets *per diem*. Also ten minims of fluid extract of cascara at bedtime, to regulate the bowels, which were in a torpid condition. Besides this, the surface over the painful area was painted with iodine every second or third evening, as the condition of the skin permitted.

Her diet consisted of not less than half a pound of lean beef or chops at two meals each day, with vegetables in limited quantities, to which was added half a pint of cream each day, to be consumed in a manner most agreeable to the patient.

The result of this treatment was, that the patient gained flesh at the rate of a pound a week and strength in accordance. The temperature became normal at the end of the second week, and deep inspiration gave no pain early in the third week. No trace of fluid could be found by the tenth day, while after eight weeks of treatment the patient declared that she never felt better in her life.

This case seems to me to be one which demonstrates the beneficial properties of Protonuclein, especially when combined with a nourishing diet. There can be no doubt that this case would have terminated in empyema, and that very shortly, had active treatment been delayed; and I believe that many cases of pleurisy with an effusion which is not absorbed so rapidly as it ought to be, would be speedily cured by a treatment substantially the same as the one employed in this case.—*Dr. Abram H. Cooke in N. Y. Med. Jour.*

ALWAYS THE SAME.
A STANDARD OF ANTISEPTIC WORTH.

LISTERINE.

LISTERINE is to make and maintain surgical cleanliness in the antiseptic and prophylactic treatment and care of all parts of the human body.

LISTERINE is of accurately determined and uniform antiseptic power, and of positive originality.

LISTERINE is kept in stock by all worthy pharmacists everywhere.

LISTERINE is taken as the standard of antiseptic preparations: The imitators all say, "It is something like Listerine."

LAMBERT'S LITHIATED HYDRANCEA.

A valuable Renal Alterative and Anti-Lithic agent of marked service in the treatment of Cystitis, Gout, Rheumatism, and diseases of the Uric Diathesis generally.

DESCRIPTIVE LITERATURE

UPON APPLICATION.

LAMBERT PHARMACAL CO., St. Louis.

BUFFALO LITHIA WATER

Disintegrates and breaks down Urinary Calculi, both the Uric Acid and Phosphatic Formation, and other Varieties as well.

ANALYSES AND REPORT BY DR. R. OGDEN DOREMUS

Professor of Chemistry in the Bellevue Hospital Medical College, New York.

NEW YORK, December 3, 1896.

*Dr. E. C. LAIRD, Resident Physician,
Buffalo Lithia Springs, Va.*

Dear Doctor:—

I have received the five collections of **Disintegrated Calculi**, each collection containing a number of fragments, and also the three boxes, each containing a single Calculus, mentioned in your letter as discharged by different patients while under treatment by the **BUFFALO LITHIA WATER, Spring No. 2.**

I have analyzed and photographed parts of each specimen, and designated them alphabetically.

One of Calculi from collection marked "A" was $\frac{1}{16}$ of an inch in diameter, of an orange color, and on section exhibited a nucleus surrounded by nine concentric layers of a crystalline structure. On chemical analysis it was found to consist of **Uric Acid** (colored by organic substances from the urine), with traces of Ammonium Urate and Calcium Oxalate. A fragment of a broken down Calculus from the same collection was found to consist of **Uric Acid.**

One of the fragments taken at random from the collection marked "B" which was still more disintegrated than the preceding one, proved on analysis to be composed chiefly of **Urid Acid** and Ammonium Urate, with a trace of Calcium Oxalate.

The contents of the boxes marked "C" consisted chiefly of whitish Crystalline materials. On microscopic examination they exhibited well defined and prismatic crystals, characteristic of "Triple Phosphate." On chemical analysis they were found to consist of Magnesium and Ammonium Phosphate (triple phosphate), Calcium Phosphate, Calcium Carbonate a trace, Sodium and Potassium Salts in traces, Uric Acid and Urates none, Calcium Oxalate none, Organic debris in considerable quantity, and matters foreign to Calculi.

The fragments of Calculi in the collection marked "D" were numerous, and of sizes varying from small fragments to $\frac{3}{4}$ inches in length, $\frac{1}{16}$ inches in width and $\frac{1}{16}$ inches in thickness. Some of the fragments were white and others were gray in color. On chemical analysis they were found to consist partly of the variety known as "Fusible Calculus," Ammonium and Magnesium Phosphate with Calcium Phosphate also, Calcium Phosphate, Calcium Carbonate in traces, Calcium Oxalate in traces, Uric Acid in traces and Organic matter.

The Calculus in collection marked "E" were nodulated and nearly spherical in shape, consisting of Crystalline layers from $\frac{3}{8}$ to $\frac{1}{4}$ of an inch in diameter. They were of a brown color, and on analysis were found to be chiefly Uric Acid, with some Ammonium Urate and traces of Organic matter.

Yours respectfully,

Analyses F, G and H, omitted for lack of space.

R. OGDEN DOREMUS.

Water in Cases of One Dozen Half-Gallon Bottles, \$5.00. F. O. B. Here.

SOLD BY ALL FIRST CLASS DRUGGISTS.

THOS. F. GOODE, Proprietor, - - Buffalo Lithia Springs, Va.

A FEVER-KILLER--AN ANODYNE--AN ANTIPYRETIC IS "PYROCTIN." Doctor have you tried it? If not, send your address on a Postal card to Murry Drug Co., Gen'l. Ag'ts, Columbia, S. C. They will gladly send samples. See their Ad' in this Journal.

Twentieth Year.

FEBRUARY 5, 1897.

Vol. 39, No. 3.

NORTH CAROLINA MEDICAL JOURNAL.

PUBLISHED SEMI-MONTHLY AT \$2.00 PER ANNUM.

Robert D. Jewett, M.D., Editor.

[Entered at the Post-Office at Wilmington, N. C., as Second-class mail matter.]

A NEW DIGESTIVE FERMENT

Useful in all ailments arising from
faulty digestion of starch.

The profession have tried, says the THERAPEUTIC GAZETTE, to aid the digestion of starch for many years by the use of various preparations of malt, which have been largely given with little direct good as a result, for the diastatic properties of most of these preparations are so slight as to render them practically of no value as digestants, whatever may be their usefulness when acting as nutritives. Within the past few months a Japanese investigator has obtained such a valuable diastatic product that his researches deserve careful study and his results thorough trial. If, as he has apparently proved, we possess in Taka-Diastase a starch-digestant equal to or exceeding in power pepsin or pancreatin for proteids, we have made an extraordinary gain in therapeutics, for we are now able to relieve a large number of persons suffering from faulty digestion of starch, and can aid our patients during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods.

Taka-Diastase has now been under trial at the hands of the profession for nearly eighteen months, and it seems to have been proven conclusively that it is the remedy in amylaceous dyspepsia. Immediate improvement in digestion follows its administration. From 1 to 5 grains should be taken with the food or immediately thereafter; if in capsule form, at the beginning of the meal.

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NORTH CAROLINA MEDICAL JOURNAL.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND
SURGERY.

VOL. XXXIX. WILMINGTON, FEBRUARY 5, 1897. No. 3.

Original Communications.

MEDICO-LEGAL POINTS IN THE MAYBRICK CASE.

BY HARRIETTE C. KEATINGE, M.D., SCI. D., New York.

THE trial of Florence Maybrick in Liverpool, in August, 1889, for poisoning her husband with arsenic, was one of the most remarkable of this century, both from a medical as well as a legal standpoint. The condensed paper I give on the case, is presented with the view of arousing discussion among our members and the medical and legal world at large, and I have made my statements as brief as possible, for this reason. It will be sufficient for me to state, that Mrs. Maybrick was of an excellent family; she married an Englishman of twice her own age, and went to Liverpool to live. She became the mother of two children, to whom she was devoted. Mr. Maybrick was a well-known "man about town" and noted for his love of fast horses and fast women, as well as a confirmed arsenic eater. It is only natural that they should live together unhappily, as it was well known he abused her. He had been in poor health for a long time and resorted to stimulants besides strychnine and arsenic as tonics.

On April 27, 1889, Mr. Maybrick went to the Wirral races, on horseback. He was caught in a rain storm, which wet him through, but he did not take the trouble to change his clothing.

*Read before the Medico Legal Society October 7, 1896. (From
advance Streets Medico Legal Journal.)

He staid out late that evening driving with his friends. The next day he was taken with a chill, and his wife sent for Dr. Humphreys, and later sent for Dr. Carter. Mr. Maybrick died on May 11th. During his sickness, his symptoms were vomiting, pain and burning in the stomach and bowels, thirst and great prostration. His physicians gave him during his fatal illness, the following drugs as medicines: Sulphonal, cocaine, bismuth, (double doses), nitro-glycerine, phosphoric acid, casava, Plumbers' pills, containing antimony and calomel, prussic acid, bromide of potassium, tincture hyoscyamus, tincture henbane, antipyrine, jaborandi, chlorine, morphine, Fowler's solution of arsenic, bismuth and opium suppositories. He was attended during his illness by several physicians, who consulted together and decided that his sickness and death "was caused by some grave indiscretion of diet *away from home.*"

Mr. Maybrick died at 8:40 p. m., May 11th. On the morning of that day Mrs. Maybrick fell into a speechless swoon, and remained so for forty-eight hours, and was entirely prostrate from this time. (May 11th to the 18th.) Immediately after the death of Mr. Maybrick, Mrs. Maybrick was charged by the police with having murdered her husband by administering doses of arsenic to him—this charge being made on the suspicions of two brothers of Mr. Maybrick.

Search was made for arsenic in the house and a sufficient quantity was found to poison fifty men—all of it was found in Mr. Maybrick's rooms, and belongings (it was proven at the trial that Mr. Maybrick had purchased 150 grains of arsenic about three months before his death.)

On May 14th, four days after her husband's death, Mrs. Maybrick while still prostrated was arrested for murder.

Police were posted at her door and a coroner's inquest commenced—no person was allowed to see Mrs. Maybrick alone or attempt to speak to her.

May 18th the magistrate charged her with having administered poison to her husband and she was taken from her bed to Walton Gaol—accompanied by Dr. Humphrey and a nurse—all this was done before a post-mortem examination was held, and upon the bare suspicion of two brothers of her husband, who were known to be her bitter enemies—On June 5th, (twenty-

four days after death) the adjourned inquest was held, Mrs. Maybrick's counsel saying, "before going further in the case, we would have some evidence as to the cause of death." June 6th inquest resumed.

Mrs. Maybrick was not allowed to be present. Mr. Davis, the analyst, reported the result of his analysis—to be 1·50th grain of arsenic found in the liver. *Nothing* in the stomach or its *contents*, and traces not weighable in the intestines. Mrs. Maybrick was then brought in and committed for trial on the charge of wilful murder.

On June 13th she was brought before the magistrate and for the *first* time heard the evidence against her. The trial took eight days, the last two were entirely devoted to the summing up of the Judge—Mr. Justice Stephens.

The two great points necessary for us to consider are these, 1st, did James Maybrick die of poisoning? If so—2nd, was it administered by his wife?

I will condense the evidence for the crown under two heads—the witnesses who gave evidence as to the cause of death on behalf of the crown, were Dr. Humphrey, Dr. Carter, Dr. Stevenson and Dr. Barron. Their principal subsidiary witness was Dr. Davis, analyst. Of these witnesses Drs. Carter and Stevenson swore they believed the deceased died of arsenic.

Dr. Humphrey (the physician first called in by Mrs. Maybrick), thought it possible, but was not sure—Dr. Barron thought the cause of death very doubtful and did not apparently regard arsenic as even the *most probable cause*. Drs. Lidy and McNamara, who were called as witnesses for the prisoner, gave a decided opinion that the cause of death was not arsenical poisoning. While Dr. Paul agreed with Dr. Barron in declining to give a positive opinion either way. Dr. Paul (declared by the *London Times* to be the greatest authority on the effect of various poisons) testified "I have made and assisted at some three thousand post-mortem examinations." He declined to give any positive opinion either way. Dr. Barron, Pathologist to the Royal Infirmary, testified afterwards, that death, in his opinion, was due to the acute inflammation of the stomach, caused by some irritant poison, which sausage, fish, mushrooms, etc., might contain and that the 1·50th grain found in the liver might have been

taken in mere medicinal doses. Dr. Forbes Winslow stated that 21 irritant poisons had been administered to Mr. Maybrick, within *six days* previous to his death.

In comparing the evidence, it is to be noted 1st, That neither Dr. Humphreys nor Dr. Carter had any experience of fatal cases of arsenical poisoning.

2nd. That neither of them suspected arsenical poisoning, (or any other kind of poisoning) *during their attendance on Mr. Maybrick nor after his death* until the accusation was made against the prisoner by Michael Maybrick (brother of the deceased) who based his suspicions on matters quite independent of any symptoms in Mr. Maybrick's illness.

3rd. That after accepting Mr. Maybrick's charge, they expected to find more arsenic in the body than was actually found, owing to which circumstance an exhumation became necessary, notwithstanding their post-mortem examination.

4th. The conclusion of Drs. Carter and Stevenson cannot be substantiated or worked out as to a fatal dose of arsenic having been given, from the figures given by the analyst or even from those given by Dr. Stevenson himself.

5th. That at the time when the crown medical witnesses were examined, no evidence had been given of Mr. Maybrick's habit of arsenic eating, and that Dr. Stevenson expressly based *his* opinion on finding arsenic in the body (we know that arsenic would of course be found in the body of a habitual arsenic taker, whatever the cause of death might be) on the accusation of the brother.

The total amount of arsenic found in the body, weighed by Mr. Davis, the analyst, was 1-50th of a grain of white arsenic in 6 ounces of the liver, and by Dr. Stevenson 26-1000 to 27-1000 of a grain, in 4 ounces of the liver, by one process, and 46-1000 of a grain in 8 ounces of the liver by a different process.

Mr. Davis estimated that there was 1-100th of a grain in 4 ounces of the kidneys, but failed to discover anything but faint traces in the intestines. In most parts of the body and in the contents of the *stomach and bowels* as well as in the *excreta* examined by Dr. Humphrey two days before death, there was no arsenic found.

All the evidence, moreover, went to negative any rapid elim-

inations of arsenic from the body for several days before his death. The symptoms of his illness I have briefly described. It is to be noted here, however:

1st. That Mr. Maybrick ascribed the commencement of his illness (April 27th,) to an overdose of strychnine which he had taken to "tone him up."

2nd. That no arsenic was found in anything that contained strychnine or Nux Vomica, so that he could hardly have ascribed to the latter effects due to the former.

3rd. That during the progress of his illness, Dr. Humphrey administered arsenic and considered its results beneficial, but Mrs. Maybrick stopped the administration of it, because her husband complained that it caused a burning in his throat.

If Fowler's solution of arsenic had been given him, it might account for all the arsenic in the liver. We know it is a common tonic, prescribed by physicians. It contains half a grain of arsenious acid or oxide to the drachm; this is about 60 drops. If a patient should take a ten-drop dose he would get one-twelfth (1-12th) of a grain of arsenic. It is usually given in from four to ten drop doses, three times a day.

If ten thousand lives had been depending upon the result of the analysis, greater care could not have been given by those scientific men who made it, and with all the tests known to Toxicologists, they did not find but 1-50th of a grain; in addition, one chemist thought if he could have analyzed the *whole* liver, he might have discovered the 1-10th of a grain possibly. From our stand point, we are not *sure* that *any* arsenic was found.

"Marsh's and Reinsch's tests for arsenic have been considered the crucial tests for these poisons and our text books so state, but recent discoveries prove that the same octahedral crystals, which State chemists have sworn to consist of arsenic, after examination under the microscope, can be produced from antimony and notwithstanding all the teachings of toxicology and chemistry the octahedral crystals *are not* conclusive evidence of arsenic.' (Vide *Medico-Legal Journal*, June, '96.)

Mr. Davis, the analyst, said that there was so much bismuth in the body that it made the analysis most difficult. As Mr. Maybrick's physicians gave him antimony, is it not possible that

the little arsenic found, (the octahedral crystals), might have been antimony instead of arsenic?

Mr. Charles Blake, expert assistant of William B. Nathan, manufacturing chemist and patentee, swore, that in February, 1889, about three months before Mr. Maybrick's death, he sold him 150 grains of white arsenic and two kinds of black arsenic, in three separate packages, and on cautioning Mr. Maybrick on its use, he replied "what is one man's poison is another man's meat—I take it when I can get it." This large purchase accounts for the quantity of arsenic found in Mr. Maybrick's apartment, some in his hat box, in his trunk, his linen closet and principally in the dressing room used as a separate room by him.

No arsenic was found in any place, especially used by his wife. All the arsenic discovered in Mr. Maybrick's belongings and places were open to Mr. Maybrick's brothers at all times and for 86 hours before and after it was said to have been found, was completely under the control of his brothers, nurses and servants.

Mr. A. Wynter Blyth in his last edition on "Poisons, Their Effects and Detection," has inserted a synopsis of the Maybrick case; and it is probable that it may have been prepared by another person, without careful investigation at least, if not prejudice. I feel it necessary to take up the most important points in his statements and analysis before going further.

He begins by saying "the Maybrick case may be considered as an example of poisoning extending over a considerable time," we firmly believe that if Mr. Maybrick's death *was* caused by arsenic poisoning, it was the result of small or large doses that had been taken by him for a *long time* before his decease, which impaired his system to such a degree that his sickness ushered in by the chill proved fatal.

He says "the marriage was an unhappy one," and again, "that Mrs. Maybrick purchased fly paper which contained arsenic, and these papers were found soaking in a basin, which was carefully covered, in her room, by a servant."

1st. Under the circumstances in which they lived—such a marriage could not be anything but a very unhappy one for his wife.

2nd. Because she purchased fly-paper which contained arsenic, (I believe most of them do), it does not follow that these facts are any reason why she should be suspected of giving her hus-

band arsenic. Why *should she* go to the trouble and risk of purchasing fly-paper, and extracting the arsenic for the purpose of poisoning her husband, when there was an abundance in the house open to her at any time?

Mr. Blyth does not mention any diarrhæa until two days before Mr. Maybrick died, and says: "Now arsenic was suspected by his physicians." In Dr. Humphrey's sworn statement he testified that he examined the excreta two or three days before death and no trace of arsenic was found. Mr. Blyth describes the post-mortem appearance of the mouth, throat, stomach and intestines and states that "no arsenic was found in the stomach or its contents, or in the spleen. (If poisoned by arsenic recently given and no diarrhœa until two days before death, why was it not found?)

Mr. Blyth sums up this part of the case by the statement that "the whole course of the post-mortem showed that the deceased died from an irritant poison, and *from the fact of a small quantity of arsenic being found in the body*, there could be little doubt but that the irritant poison *was arsenic*, although the symptoms were somewhat anomalous" (a most remarkable statement for a man to make, who is not only scientific but considers himself an authority on poison.) He does not say one word about the previous life and habits of the deceased. We can hardly understand why he makes no reference to Mr. Maybrick's habit of taking arsenic or purchasing it in large quantities.

To quote again from Mr. B.'s work, he says:—"On the night of either May 9th or 10th, Mrs. Maybrick was observed to remove from the table an open bottle of "Valentine's Meat Juice," and take it with her to her dressingroom, and then replace it. In replacing it, she was observed to take it from her dressing gown or from an inner pocket." It is remarkable that Mr. Blyth should consider the bottle of meat juice as important evidence, as both the judge and counsel for the crown did not attribute the death to the meat juice and no one who has read the evidence would consider it a factor in the case. Any one at all familiar with the evidence in this case knows that arsenic was found all over the house wherever Maybrick went. Three times
14 articles would be under rather than over the number.

He is silent as to the 150 grains purchased by Mr. Maybrick and cabinets of bottles, containing arsenic were every where in that house.

He then proceeds to enumerate some of the articles which showed traces more or less of arsenic.

It was a well established fact that Mrs. Maybrick was in the daily habit of using various cosmetics containing arsenic. The greater number of these in the market contain poison. They are used more or less by most society women—and no doubt if their clothing, handkerchiefs, etc.,—could be tested as those belonging to Mrs. Maybrick more traces of arsenic could be found—and we believe if arsenic was found as he states in her clothing—it can be accounted for in this way. It is most unreasonable to suppose she would use a preparation marked “for cats” or “fly-paper” or any other mixture to poison her husband, when there was enough in the house to poison fifty men—at her disposal—of which she could have appropriated enough without exciting any suspicion or running any risk. The question may be asked here—why were not the brothers and servants suspected as well as his wife?

Does it follow, or is it conclusive, that because he ill-treated her, or that she wrote a letter to an admirer, or even went to London to meet a gentleman friend that she committed murder?

There certainly were other ways to rid herself from an adulterous and dissipated husband, besides running a risk of being hanged.

The judge in his charge not only admitted, but avowed that none of the arsenic could be traced to Mrs. Maybrick’s possession or procuring, and that it was especially accessible to his brothers, friends, nurses and servants.

The most remarkable thing in connection with this case is that such a small quantity of arsenic was found in the body of a man who for years had been an arsenic eater. While this is not considered an accumulative poison and is supposed to be eliminated from the system, still it is a well established fact that a certain portion of it does remain in the body and locates itself principally in the kidneys and liver. We know that arsenic is like morphine in one respect—it is taken at first in minute doses—but to get its effects, those who use it must constantly in-

crease the quantity taken, until the system will bear enough to kill a half dozen persons who are not accustomed to its use. $2\frac{1}{2}$ grains of arsenic may be considered a fatal dose and death usually occurs in from 24 to 48 hours. The members of the medical profession present (and possibly those of the legal), are familiar with the symptoms of arsenic poisoning as well as those of gastro-enteritis, and they know it is very difficult to diagnose between them—if they exclude any suspicious circumstances, make no analysis before death, a post-mortem is often necessary to prove the difference.

The mucous membrane of the stomach must have been in a state of chronic irritation caused by these drugs, and when he went to the races (already feeling unwell) and was caught in a storm wetting him to the skin, we know the most probable thing afterwards to happen him would be a chill, and this did happen the next morning and was the beginning of his fatal illness—exposure to cold, chilling the surface of the body often promptly induces hyperemia of the gastro-intestinal mucous membrane and causes the first stage of gastro-enteritis. Physicians know this disease is usually *preceded* by a chill and the symptoms of poisoning by arsenic is not. The tongue, mouth and throat are dry, often diarrhea, burning pain and painful emesis, intense thirst and nausea are all symptoms alike in gastro-enteritis as well as poisoning by arsenic.

Mr. Maybrick's previous life of dissipation and indulgence in the use of arsenic and strychnine as tonics, had made him more than liable to gastric trouble.

In gastro-enteritis the patient lives as a rule several days—or possibly weeks—in poisoning by arsenic the prostration is greater and the patient rapidly passes into a collapsed state and death follows.

Now, we ask the question—What caused the death of Mr. Maybrick?

His wife was tried and sentenced to death for poisoning him with arsenic—where was the arsenic she was supposed to have given him?

The charge of a judge which was calculated to influence a jury composed of bakers, plumbers and laborers, to whom most of the evidence must have been unintelligible, and whose ex-

ceeding limited education made it utterly impossible for them to understand the most important scientific points in the testimony, easily accounts for the verdict. Pending the application to the home secretary for review of the case, four of the ablest counsel of the United Kingdom, namely, Sir Charles Russell (now Chief Justice.) Fletcher Moulton q c., Mr. Poland q c. and Mr. McDougald were employed to review the testimony and to determine whether the evidence justified the verdict. Their decision was in favor—*absolutely* of the unhappy woman—and every member of the bar present at the assizes signed a memorial in her favor.

The Home Secretary, (Matthews) after carefully reviewing the evidence, officially announced with the concurrence of the judge, "*that this does not wholly exclude a reasonable doubt whether the man's death was in fact caused by the administration of arsenic,*" and the death sentence was therefore commuted to imprisonment for life.

It seems that the first point necessary to have been solved by judge and jury was—did Mr. Maybrick die from arsenical poisoning? From the testimony of the Toxicological experts—the evidence of the witnesses and the medical men in attendance and others examined, this point was far from being proven—on the contrary. From a close study of the evidence, it does not appear that his death *was caused* by arsenic recently taken or given—but was the inevitable result of a life of dissipation. His long habit of toning himself with "pick-me-up-bitters" (arsenic and strychnine, rendered him susceptible to any change in diet and atmosphere, and when he was taken with a chill, followed by fever, pain and vomiting, every attention was given him, but notwithstanding the 21 drugs given him by his physicians, he died fifteen days afterwards.

I wish to ask the medical profession what their diagnoses would have been or would be, if called into a patient with such a history and such symptoms, even if the analyst should find one-fiftieth grain of arsenic in the liver? We know if it is taken in the solid or powdered form, portions of it may be found imbedded in the thick mucous which adheres to the inner surface of the stomach, that it is rapidly absorbed and may be detected after death in all *the tissues* of the body. Is it not reasonable to

suppose that the one-fiftieth grain found in the liver was the remains of a portion Mr. Maybrick may have taken weeks or even months before he was taken fatally ill, or it might have been a deposit from the Fowler's solution given him by his physician? All the judge and jury had to substantiate or influence them in deciding his death was caused by arsenical poisoning, was the one-fiftieth grain found by the analyst's astounding decision—beyond the comprehension of toxicologists and chemists of to-day.

There is not a case on record of the death of an adult being caused by the infinitesimal quantity here found.

Judges, juries, doctors and laity have no right to speculate on these vital questions, they have only to deal with scientific facts.

It may be truly said that Mr. and Mrs. Maybrick lived unhappily together, that he was jealous of her, (with or without reason), that she was a young, possibly careless and thoughtless woman, and by her conduct, laid her actions open to severe criticism, but as far as I have been able to study facts, nothing criminal was proven against her.

Mrs. Maybrick was not on trial for any sin or crime, but that of poisoning her husband and we believe her innocent of murder. The public should have no criticisms to make and have nothing to do with any question but this: Did Mr. Maybrick die from arsenical poison? If he did, who administered it and why was it not found by the analyst?

Both these propositions must be established beyond reasonable doubt by undoubted evidence and before a conviction could be justified. The evidence in this case does not support the verdict of the jury.

PUERPERAL CONVULSIONS, FROM THE STAND- POINT OF PREVENTION.*

BY JOHN N. UPSHUR, M.D., of Richmond, Va., Professor of
Practice of Medicine in the Medical College of Virginia.

A FIRM conviction of the great responsibility resting upon us in the care of the puerperal woman, and the skillful guidance through the perils of this period to its happy consummation in a safe delivery, is the motive prompting to the discussion of this condition—so frightful in its manifestations and so dire often in its consequences.

I cannot emphasize too much the importance to the patient of an early engagement of her medical attendant, that she may be closely in touch with him, and that he, by *extraordinary diligence*, may be keenly alive to every circumstance which may be to her a source of peril; giving to his patient advice as to personal care, of diet, exercise, rest, bowels and kidneys; making regular, often frequent, analyses of the urine to determine the presence of albumen or the lacking elimination of excrementitious solids. Often there is danger ahead when urinary analysis is negative in its results, and the nervous system is ripe for a dangerous explosion so soon as something occurs to excite the requisite reflex. I cite the following cases for sake of illustration:

CASE I.—Mrs. T., a woman of fine physique and robust health, came under my care in 1885; she would never permit me to see her until labor came on, though reported by her husband as being very dropsical. Frequent examination of her urine failed to show any albumen, though the amount of urine was scanty. Treatment, through the medium of her husband, was, of course, very unsatisfactory. When labor came on, I found her the most dropsical woman I ever saw at term. She was kept under chloroform until delivered with instruments, after a protracted labor. In four succeeding pregnancies she was never so dropsical again, but each period of pregnancy was filled with symptoms of threatened eclampsia. The patient was a hearty feeder, her

*Read before the Richmond Academy of Medicine and Surgery.

urine was usually scanty, albumen apparent on analysis, but not marked.

In her third pregnancy she had an attack of vertigo, followed by a period of insensibility; she has always suffered with her head. Her treatment during each pregnancy consisted of low diet, abundant drinking of lithia water, and keeping bowels in a condition of mild diarrhœa. She has usually taken chloroform during the latter part of the second stage of labor, and has been safely delivered five times without a single convulsion, and is now doing well in her sixth pregnancy, having reached the end of the sixth month.

CASE II.—Mrs. W., of delicate build, in her second pregnancy, during the ninth month had agonizing headache, which failed to respond to remedies; saw flashes of light and other objects continually before her eyes. When labor came on, she was kept under chloroform until delivered; her skin was so dry as to feel parched. Repeated examination of urine failed to detect any albumen. Within an hour after delivery, she complained of not being able to see (she had had no undue amount of hæmorrhage) and began to talk wildly and incoherently. Chloroform was given to control excitement, followed by full doses of potassium bromide and pilocarpine; skin acted freely and all untoward symptoms subsided; urine showed large percentage of albumen. Convalescence uneventful until fourteenth day, when marked symptoms of septicæmia developed, but she passed safely through a most dangerous illness. [See Transactions State Medical Society of Virginia, 1886.]

CASE III.—Mrs. H. had been carefully watched during second pregnancy, urine frequently analyzed, with negative results. About the time she reached the fifth and a half month I was called to see her with a sharp attack of cholera morbus; a day or two of treatment was sufficient to restore her to health. She was discharged with caution as to imprudence in diet, and every other respect. On the evening of next day, she went out to supper, eat very heartily of almonds and raisins. I was called early the following morning to see her in what her husband called a *trance*. When I reached her, she talked to me rationally, and manifested no symptoms of special gravity. At 4 p.m., she was seized with a violent puerperal convulsion,

quickly followed by a second, and for a few moments I thought her dead. I bled her freely from the arm, labor was brought on, and after delivery she made an uneventful recovery—urine for the first time loaded with albumen.

Her next pregnancy progressed satisfactorily to the ninth month, when she complained of distressing head symptoms, urine scanty, but free from albumen; some disturbance of vision. She was freely purged with calomel gr. vj., croton oil gtt. j, with complete relief of head symptoms. The week following, head symptoms again returned, and the dose of calomel and croton oil was repeated with as prompt relief as at first. Labor came on a few days after, and she was safely delivered, without any complication; convalescence speedy and uneventful.

CASE IV.—Mrs. D., primipara, æt. 22, stout and plethoric. I was retained six weeks before confinement. Frequent analysis negative, except once a trace of albumen, until October 12th, when urine was found loaded with albumen, being almost solid on boiling. Was called at 10 p.m.; found she had had three convulsions, cervix rigid, dilated size of a nickel. She was bled freely from the arm, manual dilatation persisted in for five hours; child turned and delivered; a serious convulsion during the labor, which looked as though it would be fatal; no untoward symptoms during convalescence. I found that she had been complaining for a week before the labor with violent headache. At the same time she had been eating enormously. I had not been consulted.

CASE V.—Was called in consultation to see Mrs. H., primipara, æt. 22. Saw her at 6:30 p.m. She gave the history of an unusually comfortable pregnancy. Had engaged her medical attendant *two days* before; said she had passed sufficient urine. Awoke at 5 a.m., same morning with severe headache across vault of cranium, extending over occiput and down back of neck, and some abdominal pain, which was supposed to be colic, as her time was not up (280 days) till two weeks later. Had been abstemious in her diet during latter part of pregnancy, abstaining from eating any supper. Just before 3 o'clock p.m., she described a sensation in her head as if blood was trickling through it, and a few moments later a violent eclamptic seizure developed. Her medical attendant, when he saw her in the

morning, had ordered $\frac{3}{8}$ gr. doses of sulph. morphia every two hours—she having taken in all about $\frac{7}{8}$ gr. So soon as he saw her after the convulsion, he bled her freely and administered chloroform, controlling the convulsion. When I saw her she was completely relaxed, os fully dilated and bag of waters filling the vagina—ruptured accidentally in my examination. Labor progressed satisfactorily, and she was delivered of a live baby at 8:15 p.m.—skin hot and dry, pulse soft, feeble and 120 per minute—profoundly unconscious. Another convulsion at 9 p.m. No secretion of urine since early morning; an enema of bromid. potass., sulph. morph. and camphor was administered, and she passed into a quiet, natural sleep, having a good night with the exception of slight restlessness. She had also a hypodermic of $\frac{1}{20}$ gr. sulph. strychnia. On next day she had three more convulsions, but of diminishing severity and longer interval; vision impaired, and she was unable to recognize her friends before the third day; periods of consciousness alternated with periods of delirium.

The baby had one convulsion on the day subsequent to its birth, but afterwards did well.

REMARKS.—It is not my purpose to discuss the classification or causes of eclampsia; this is sufficiently done in all modern text books. It is in the direction of such *care as will prevent the occurrence of convulsions* that I wish to consider the subject.

The cases cited as illustrative, emphasize—*first*, the necessity of early engagement, and subsequent close supervision. Case I. shows how such care warded off trouble in five pregnancies. Case II. points to threatened trouble indicated by severe head symptoms with negative evidences from the urine, and, with Case V. emphasizes this symptom and the hot, dry skin—relief coming when the skin and kidneys had their function restored. Cases III. and IV. point to the necessity of careful dieting, and the overloading of the stomach as an exciting cause—in the one case, no albumen, and in the other albumen only twice discovered prior to the development of convulsions. Where there is already a hyperplastic condition of the blood. The attempt on the part of the kidneys to eliminate increased effete matter begets kidney irritation—it fails in its function, and the appearance of albumen in the urine is the external manifestation of

poisoning of the system by toxins, which, unless eliminated, result in an eclamptic explosion.

The patient's diet should be nutritious, digestible, not rich; regular exercise in the fresh air, and especial care of the bowels and kidneys.

The administration of saline cathartics shall be frequent, making the mucous membrane of the bowels eliminative and derivative; an abundance of lithia water and other necessary diuretics, to stimulate the kidneys. If the patient shows evidences of anæmia full doses of the tinct. chloride of iron long continued will be of value.

The treatment of the case when convulsions occur, I believe, consists imperatively in free administration of chloroform and prompt bleeding, with active purgation if the bowels are constipated; nor should we forget that the welfare of the patient depends upon as *prompt* delivering as possible—by manual dilatation of the womb and forceps or turning. When, as in Case V. the patient remains unconscious after delivery, with symptoms of depression, as evidenced by rapid, feeble pulse, a hypodermic of strychnia nitrate, will do much good by its action in sustaining the heart, and diminishing cerebral congestion by its toning up effect on the vaso-motor nervous system, and at the same time sustaining the uterus in firm contraction.

I am convinced of the usefulness of morphia in conditions of rigid os and cervix in the first stage of labor—but, if there be symptoms of threatened eclampsia, *it is positively contraindicated, and should not be given* in the treatment of the convulsions; it arrests secretion in the skin and kidneys, and favors the retention of the effete materials in the system.

Society Reports.

MARTIN COUNTY MEDICAL SOCIETY.

At a regular meeting of the Martin County Medical Society, held at Williamston, N. C., on January 4, 1897, the following resolutions were adopted:

Whereas certain Insurance Companies have instituted a system of graded fees for medical examinations and whereas they require the same form of examinations for all applicants.

Deeming that such a system is unjust and unfair to the examiners of the county. Be it

Resolved, in meeting assembled that we do decline to make any examination for less than five dollars.

Resolved, That a copy of these resolutions duly signed be forwarded to every such company.

Signed by Drs. J. B. H. Knight, Pres., R. J. Nelson, Sec., W. H. Harrell, H. I. Clark, B. L. Long, E. D. Brown, L. E. Ricks, R. H. Hargrove and W. R. Mayo.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

REGULAR MEETING, NOVEMBER 24, 1896.

Dr. Landon B. Edwards, President, in the chair. Dr. Mark W. Peyser, Secretary and Reporter.

Dr. J. N. Upshur read a paper on

PUERPERAL ECLAMPSIA. [See page 84.]

DISCUSSION.

Dr. Jacob Michaux said he was sorry he was not present to hear the whole of the interesting and instructive paper, but he wished to speak of several things of which no mention had been made:

First, as to the causation of puerperal convulsions. Conclusions as to the retention of urea in the blood were drawn from the experiment in which one hundred grains of that substance were injected into an animal without causing convulsions. He would say that, considering the amount of urea voided, the quantity was by far not large enough to produce the symptoms. A second theory of causation is the retention of other excreta, which is doubtless true, but he believed urea played an important part.

Regarding the morphine treatment, he was in thorough ac-

cord with Dr. Upshur. At one time it was thought proper, but considering its effect on the excretory organs, it could be immediately seen that the indications were thwarted.

A subject in which there was a great deal of misconception was, when convulsions were threatening, the custom was to use diuretics. The practice is wrong, for this reason: The uterus presses not necessarily on the renal, but on other abdominal vessels, the pressure being projected through intervening ones to those of the kidneys which become congested, and albuminuria results. Using diuretics, the kidneys are further congested. Therefore, it is highly important to look to the bowels as the chief means for getting rid of the poisonous matter. He was confident that he had seen impending convulsions thwarted by the use of salines. He coincided, also, with Dr. Upshur in the use of the lancet and chloroform; but employing the former, care should be had in anæmic cases. He had had good results, too, from *veratrum viride* in conjunction with chloroform, as likewise from chloral and the bromides.

Dr. H. Stuart MacLean stated that Flint records an experiment in which a pound of urea was injected without production of convulsions; but the injection of urine produced them.

Concerning treatment, he said that during his service at the Brooklyn Hospital, of seven cases of puerperal eclampsia, three in which *veratrum viride* had been administered, died, while four not treated thus recovered. In the latter, hot packs and bleeding were the measures employed. Where bleeding was done antepartum, high injections of saline solution equal to the amount of blood drawn, and lavage of the stomach were employed.

Dr. C. R. Robbins described a case in which there were all the premonitory symptoms of eclampsia. Primipara, eight and a quarter months pregnant, urine albuminous, frontal headache, epigastric pain, œdema, spots before the eyes, etc. The treatment consisted of an absolute milk diet, lithia water and nitroglycerin. The patient had no convulsions, and delivery was successful.

Dr. W. W. Parker concurred almost *in toto* with Dr. Upshur, but had more faith in *veratrum viride*. He described the following cases:

Case I, was in the second month of pregnancy, and when seen before the attack, there was no sign of trouble. Suddenly, there was violent headache, and in a half hour, convulsions. She died in twenty-four hours without recovering consciousness. He thought her death was due to apoplexy.

Case II. Eclampsia occurred in the third month of pregnancy. The urine was loaded with albumin. The convulsions were treated, and while they never returned, two weeks after the attack, there were headaches, blindness, etc., and the albumin had increased until the urine was almost solid. Immediate production of labor was insisted upon. He thought the patient could not possibly have survived had it not been done.

Dr. John F. Winn asked if it was *Dr. Upshur's* custom to give pilocarpine, and if he had ever used the hot pack?

Dr. Upshur replied that the administration of pilocarpine depended on circumstances. As to the hot pack, he never used it, as it was almost impossible in private practice. It was not because of lack of faith that he did not use it.

Dr. Winn continuing, said there was one phase of treatment that he had not heard touched upon, and that was early emptying of the uterus. When convulsions were present, there was no difference of opinion. When imminent and not yielding to ordinary treatment, they would end in premature labor. Therefore, following nature's plan, would it not be well to induce it, thus putting a stop to the convulsions, and relieving the woman of a liability to further attacks?

He described a fatal case in which convulsions did not occur until an hour after labor. The hot pack, venesection, chloral and bromide injections were all employed. He thought the induction of premature labor was always called for both in the interest of mother and child in every case whose symptoms were not relieved by dietic and medicinal measures.

Dr. W. T. Oppenheimer thought the causation had a great deal of bearing on the case. Thus, short women are more susceptible than others. Always there is some dyspepsia of the small intestine giving rise to fermentation, which with the gravid uterus, presses on the blood vessels of the kidneys, producing atrophy. These cases he treated by anti-ferments, digestives, etc. Salines were employed also. Women not disposed to

alimentary troubles, are seldom affected. He advocated bleeding and the use of alkalies.

Dr. Arthur Jordan, apropos of the injection of urea, remarked that the experiments had been made with rabbits, and that it was supposed, too, that the urea passed off too rapidly. The venal arteries were ligatured, but no satisfactory results were obtained.

He thought the trouble was due to hypersensitiveness of the nervous system, no matter how it may be brought about. It behooves us, therefore, to watch anything that has a deleterious effect. The treatment went to favor his statement viz: chloroform, chloral, bromides which kept in subjection the nervous system. A remedy he saw used with happy results, was morphine in one-half grain doses until a grain and a half to two grains were given.

Dr. Edward McGuire reported the following case: The patient was somewhat anæmic and in the eighth month of pregnancy. She progressed well until July, when, without known cause, there was paresis of the corner of the mouth, uvula and tongue.

The diagnosis was embolism of the vertebral artery. Since that time there had been excessive nervousness, the least movement of the child bringing on a nervous attack. In September, while out of town, she had a convulsion, and the physician called in gave chloral. He saw her three hours later. There was no albumen in the urine. A short time ago, two months after the first, she had a second attack in the night. She had complained to her husband of pain in the face, and a feeling of impending convulsions. He saw her when the attack had passed.

As she suffered from photophobia, the light was low. Entering the room, he turned on the gas, and she immediately went into another convulsion. He doesn't know what form it was. Since this, she has had no other attack. The amount of urine was normal, and there was no albumen. He hesitated to induce labor. She never had a convulsion before pregnancy.

Dr. Hugh M. Taylor said that venesection and transfusion appealed more to him than any other treatment. We want no better evidence of the uncertainty of treatment than its wide range. He reported the following case in advocacy of Dr. Winn's early induction of labor. The patient was short and

fat. In the morning there was one pain, and the bag of waters broke. In the early night, she was very nervous, but recovered, and labor went on slowly, there being progression and recession. Suddenly there was a terrific convulsion. Chloroform was administered, and she laid in stupor so long that it was hard to tell when the stertor of the convulsions stopped, and that of chloroform began. The uterus was emptied, and the patient recovered consciousness; and is now doing well. He did not mean to say that this sustained *in toto* the treatment. Albumin was never found.

Dr. W. S. Beazley described the following case, a II para. On reaching it, he found labor far advanced, with no untoward symptoms, and everything went on normally. He left the house, but in two hours, having been sent for, he found the patient in a hard convulsion, which passed off in a few minutes. She did not regain consciousness, and, in a half hour, went into a second attack. Enemata of bromide of potassium and chloral were given, and chloroform administered, but to no avail, as she grew worse and died. There were no convulsions with the first labor.

Dr. Upshur, in conclusion, remarked that he wished to say that Dr. Oppenheimer had gotten the cart before the horse. The digestive symptoms of which he spoke, and the consequent accumulation of gas, were due to an attempt on the part of the stomach and bowels to relieve the system by vicariously eliminating effete matters which should go off by the kidneys, the irritation thus set up *caused* the indigestion and consequent flatus. The frequent vomiting, the renal asthma, etc., which we see in several forms of Bright's disease, is illustrative, the mucous lining of the stomach and bowels, and bronchioles, seeking to help the kidney. The pregnant woman's blood is in a condition of increased plasticity, there is over-nutrition and over-stimulation of the kidney, it thus fails in its eliminative function, and the presence of albumin in the urine is the external manifestation of this condition, toxic matters remain in the blood, poisoning the nervous system, and find expression in a convulsive explosion when the proper reflex comes, from over-loaded stomach, or the pains of labor.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

THE PHYSICIAN'S CLAIM SHOULD BE PROTECTED BY LEGISLATIVE ENACTMENT.

There has been much written about the lack of business qualification possessed by the average physician, and to this fact is attributed his failure to collect his accounts. It is true that a great many physicians do lack business education, for they have been transferred immediately from the college into the medical school, and have had no experience in business life. There are others, however, who are naturally richly endowed with the ability to manage their business affairs. But it must be remembered that the physician who is following his profession with the highest motives, is so fully occupied in studying and searching for the means of relieving the symptoms of his suffering fellows, that he does not have time to attend closely to the collection of bills due by former patients, to whom he has rendered invaluable services, whose lives he has saved, perhaps, and whose wives and children he has restored to them.

Doctors necessarily lead irregular lives—subject to be called at any of the twenty-four hours and to be kept up, often, through the entire night, it is impossible for them to systematize their work, as can be done by men in business life. These latter can appoint certain hours for arising, eating and retiring; they can have a special hour for reading the daily paper, another for their correspondence, etc., but the busy doctor has to seize an opportunity for these things at any time it presents itself.

The physician's failure to collect his accounts is not always due to slack business habits. It must be remembered that the physician earns his fees at a time when his patients are in distress, when they are not only at extra expense for drugs and proper articles of diet, but are also deprived of their usual income. The true physician is a humane man and does not care to press his patients for payment when they are physically and financially crippled, and many, alas, too many, of these patients, when health and prosperity have returned, forget the patient service of the faithful physician, who has braved the storm and the torrent and turned night into day to save them from suffering and death.

The services of the physician are the most important a man can receive, for upon his skill often depends the man's ability to meet obligations to others. The physician's claim, then, should be paramount to all others, and should be protected by legislative enactment. The doctor's services should constitute a lien upon a patient's crop and estate, giving him a pro rata share in the division of the crop or estate with other preferred creditors. The physician, who, when called to attend a man in sickness, should first require that payment for his services be secured by mortgage, would be denounced as heartless and unsympathetic. **He must** go ahead with his work, furnishing medicines and surgical appliances, with no assurance that he is to receive any remuneration for his services. When the man recovers all his efforts must be directed to paying the claims of others; if he dies, his estate is eaten up by mortgages and liens, and the doctor gets nothing. In the words of an esteemed correspondent "as a business man the average doctor has about the same opportunity to save his claim as a man would have for saving his life were he seated upon a good-sized mill-stone

in the Gulf of Mexico. The country store-keeper, the ubiquitous horse dealer, the grinding money changer, the commission merchant, all come in with a double backaction water-proof mortgage to protect their respective claims and by the time their avarice is satisfied the garners are swept, The remainder that is left, if made into a compressed ball and shot into a gnat's eye, would not cause the gnat to even wink. That represents the doctor's part of the year's product." This same correspondent asserts that out of claims amounting to over \$6,000 he can collect only about \$600. As it is with our friend, so it is with hundreds of physicians practising in North Carolina, but we trust that not many lose so large a percentage of their accounts.

The doctor exposes himself to all kinds of weather, and to infectious diseases, running the risk of carrying the infection to his own family, drives his over-worked horse scores of miles over rough and dangerous ways through midnight darkness, gives his services willingly and without charge to those whom he knows to be in destitute circumstances, and when he presents his bill to those who should pay him, and asks for even part payment, he is told "Doc' I know that you hev done me and my family a power o' good, but I haint got no money to pay you, fur these other fellers, drat 'em, hev got it all; but, Doc, I hope the Lord will bless you." A doctor likes gratitude and perhaps feels better for the benedictions that are showered upon him by his grateful patients, but blessings in that shape do not feed and clothe his family; they do not keep the faithful horse from wondering why it is that he should have to work so hard and eat cow-hay; they do not cancel the bills for medical books, medicines and surgical apparatus; they are not acceptable in the Sheriff's office in payment of the *License Tax* which the doctors of North Carolina have to pay to the State for practising medicine. The doctor needs money and is entitled to it. The brick mason, and the carpenter, and the painter, and the farm laborer are all protected. Why should not the faithful physician whose services protect all the other creditors, be protected? Cannot our Committee on Legislation devise some measure that will give the physicians of the State some relief, and secure its enactment by the present Legislature?

BELLEVUE DESTROYED BY FIRE.

The many friends of Bellevue Hospital Medical College will greatly regret to learn that on the 21st of January the college building of this school was burned. The fire was thought to have been caused by an electric wire. The college building was entirely gutted, the loss being estimated at about \$20,000. It will be remembered that we recently noted the fact that funds had been appropriated for the erection of additional buildings in connection with this college. The amount ought and doubtless will be increased now, so that a modern and convenient college building, in keeping with the increased needs of the school, may be erected. We have not been advised in regard to the temporary arrangements that have been made, but have no idea that the course will be interfered with. We greatly regret the misfortune and hope that everything will soon be put in order again.

Abstracts.

TREATMENT OF SYPHILODERMATA.—Abstract of clinical lecture delivered at the New York School Clinical Medicine, November 25, 1896. By Dr. Wm. S. Gottheil.

A careful consideration and trial of the various methods of treating the syphilodermata has led me to the following conclusion:

1. In the primary stage, when only the chancre is present, no general treatment; calomel locally.
2. As soon as the secondary period sets in, as shown by the general adenopathy, angina, osphalgia, and eruption, the internal treatment for mild cases should be $\frac{1}{4}$ to $\frac{3}{4}$ of a grain of the proto-iodide of mercury t.d., continued for three months, or until the symptoms disappear. In severer cases, with pustular eruptions, severe anginas, persistent headaches, etc., a course of 6 to 10 intra-muscular injections of 10 per cent. calomel albolene suspension, 5 to 10 minims at intervals of 5 to 15 days, should be employed.

3. After completion of the course and cessation of the symptoms, employ tonics, etc., without specific treatment, for three months.

4. Thereupon a second calomel course as above, plus a small dose (15 grains) of iodide of potassium in milk after meals. This to be given whether later secondary symptoms of the skin and mucosæ appear or not.

5. Second intermission of treatment, lasting 3 to 6 months, according to the presence or absence of symptoms.

6. In the second year, if tertiary lesions marked by deeper and more localised ulceration are present, give the iodide of potassium in increasing doses (60 to 600 grains daily) as may be necessary. Combine with it occasional courses of calomel injections. If no lesions appear, give a mild course of both.

The best local treatment of the syphilodermata is with the mercurial plaster-mull.

Passed Assistant Surgeon G. B. Young, U. S. M. H. S., (*Public Health Reports*) reports a case of small-pox in Memphis, caused by the contagion which had been carried in clothing for at least seven months. The case occurred in the person of a three year old child who had been successfully vaccinated. Boarding in the house with the child was a contractor who erected the county pest-house last winter and was necessarily more or less exposed. His winter clothing was hanging in a closet all summer, and some of the child's clothing was hung in juxtaposition to them.

At least seven months must have intervened since the last possible exposure of the contractor's clothing—possibly longer—and the exposure of the child to infection therefrom. There has been no smallpox in the city for seven or eight months and there is no other source of infection possible other than the contractor's clothing. Doubtless the child was hyper-sensitive to infection. The contracting the disease after recent successful vaccination and from a source of infection presenting the poison in a (probably) very attenuated form all point to this. The confining of the clothing in a close closet doubtless also cuts a figure in the preservation for so long a time of the specific poison.

THE TREATMENT OF TUBERCULOUS GLANDS OF THE NECK.—Stiles (*British Medical Journal*) says tuberculous disease of the cervical lymphatics gives rise to such very different morbid conditions and presents itself clinically in such diverse forms that no one line of treatment can be expected to suffice. Each case must be considered and treated on its own merits. Although in tuberculous adenitis it is the particular morbid condition which exists which mainly determines the treatment, there are, nevertheless, a number of secondary factors to be taken into account and the value of each correctly estimated, before judgment be pronounced as to the particular line of treatment or operation to be adopted. For instance, the extent of the disease, its duration and progress, the previous treatment and its results, have all to be taken into account. Another important point is whether the glandular affection is a part of a general tuberculosis or purely a local condition. If the latter, the primary source of the infection must be sought for, and removed whenever possible.

That the disease should be so often localized to the glands of the neck is not surprising, when we remember the frequency with which the surface lesions exist in children in connection with the mouth, naso-pharynx, tympanum, conjunctivæ, and the skin of the head generally.

It is more than probable that the prevalence of tuberculous glands in the neck is intimately associated with the special development of adenoid tissue at this period of life, and with the frequency with which inflammatory processes are met in connection with the faucial and pharyngeal tonsils, and with the decay of the milk teeth.

Formerly the teeth were regarded as the most frequent and important source of infection. Within the last few years the tonsils, which Virchow taught were peculiarly exempt from tubercle, have been shown to be a frequent seat of it, and along with the naso-pharyngeal and lingual tissue, they are now regarded as a more important source of infection even than the teeth.

While admitting the primary importance of the naso-pharynx as a source from which the deep cervical glands become infected, the author is inclined to attribute considerable blame to the teeth as a source of infection of the submaxillary glands. Starck ex-

amined 113 children (aged from 3 to 12 years) with tuberculous cervical adenitis, and came to the conclusion that in 41 per cent. no source of infection could be discovered other than carious teeth, which were present in 80 per cent. of the cases.

As to treatment he adopts the following plan when the glands have broken down:

- (1) Incision.
- (2) Curetting.
- (3) Application of pure carbolic acid.
- (4) Packing with iodoformized wool.

The author claims for the wool that it is soft, elastic, acts as a good drain, and can be easily made to fill the entire cavity.

If the glands have not broken down and are very extensive he does not recommend excision, but opens and treats each abscess as the glands break down.

HYPEREMESIS GRAVIDARUM.—W. W. Holliday, Cleveland, O., (*Cleveland Med. Mag.*) reports two cases bearing on this subject. The first was a lady of twenty-seven who gave a history of general malaise, some vomiting and continuous nausea for three or four days. Some nine months before she had aborted at the sixth week. Had always been irregular and scanty in menstruation, and had had attacks of vomiting. No family history of cancer or tuberculosis. It was six weeks since the last menstruation. Examination of uterus, cervix, and abdomen showed no changes indicating pregnancy. Slight pain in epigastric region and in back of neck, no tenderness of vertebræ. Bowels readily moved. Urine normal. Being suspicious of pregnancy, rest in bed with powders of calomel and bicarbonate sodium was ordered, with counter-irritation over the stomach. No relief was given, and bismuth subnitrate with carbolic acid in mucilaginous acaciæ and peppermint water was tried, but not retained. Bismuth and oxalate of cerium were tried with no benefit. She was sustained by peptonized milk enemas. Drop doses of wine of ipecac and Fowler's solution also failed. Another examination revealed no changes in uterus or cervix. Lavage was refused until after consultation with another doctor, when it was tried once a day for three days with no benefit. Strychnia was given hypodermically with morphine, and hydrochlorate of cocaine tablets were given

by the mouth. The patient failed in strength and a surgeon was called, who examined the patient thoroughly *except* the uterus under ether with negative conclusions. The death of the patient followed, and the post-mortem showed a pregnancy of three months. The growth must have been very rapid during the last few weeks. The writer says, "we have been told of some of the mistakes of Moses. We occasionally make them ourselves, and while it may not be pleasant or even fashionable to talk of them, it occurred to me it might be practical if we did it more.

The second case showed unmistakable signs of pregnancy, and remedies similar to those used in the preceding case were tried with no benefit. Copeland's plan of dilating the cervix after dipping the instrument in pure carbolic acid was tried, but failed to give relief. As there was erosion of the cervix a tampon saturated with a ten per cent. solution of ichthyol in glycerin was applied to the cervix. This was retained for four days, and complete freedom from nausea resulted. La Torre of Rome recommends a twenty per cent. solution of ichthyol in glycerin. Another writer has found that vesication over the fourth and fifth dorsal vertebræ gave relief. The necessity of not waiting until the patient is exhausted before operating is very apparent from all the literature of the subject.—*American Gynecological and Obstetrical Journal*.

MURPHY'S BUTTON.—Czerny (*Centralblatt für Chirurgie*), in an abstract of a paper read before the German Surgical Society, states that he was induced to use the buttons by the results of recent experiments made by Marwedel on animals. These researches prove that the button effects a very even union of the intestinal walls without pseudo-membranous adhesions, and that the opening shows no tendency to subsequent contraction. Of thirteen cases in which the author has used the button, three were fatal. In one of these fatal cases death was the result of pressure gangrene and perforation, in consequence of the application of too large a button. In the other two cases the button was used under the most unfavorable conditions of enterectomy for extensive gangrene of strangulated hernia.

The button, Czerny found, was usually discharged in the stools in the course of the second or third week.

In a case of successful gastro-enterostomy, the button had not been passed up to the date of the patient's discharge, twenty-four days after the operation.

It is pointed out that the use of the Murphy button, like that of every other method of intestinal approximation, requires practice, although its mode of application can be more readily learned than that of a double suture, which, in Czerny's opinion, is still the best method of closing wounds in the intestines.

The chief objection to Murphy's method is the sojourn of a heavy metallic substance in the intestinal canal; until this has been discharged naturally by the bowel the surgeon must remain anxious as to the welfare of his patient.

It is concluded that Murphy's button, though not the final solution of the problem of intestinal suture, marks an important advance in this direction, and, therefore, demands careful study. —*University Medical Magazine.*

CHRONIC SEPTIC ENDOMETRITIS.—(I. J. Watkins, *American Gynecological and Obstetrical Journal*). The prophylactic treatment of chronic septic endometritis has not received the attention in the literature which its importance deserves. Many cases of affection result from puerperal infection and can probably be prevented by appropriate treatment. In treating puerperal cases, the advisability of intra-uterine treatment should be considered, not only as regards the saving of life, but also as regards the remote health of the patient. As many cases of puerperal endometritis will result in chronic septic endometritis if appropriate intra-uterine treatment is not employed, these cases should invariably be submitted to thorough exploration of the uterine cavity for remnants of decidual or placental tissue and treated according to indications.

If it were possible to stop the careless and useless employment of the uterine sound, as frequently practised, the number of cases of chronic septic endometritis would be greatly diminished.

The pathological anatomy of chronic septic endometritis is such as to make it obvious that treatment by injections, irrigations, and swabs can be of little or no service, and, therefore, these methods of treatment need not be considered.

The enthusiastic advocates of electro-therapeutics seem to be-

lieve that nearly all cases can be cured by this means, but others, after a thorough trial, have abandoned the use of this remedy.

The rational treatment of chronic septic endometritis, based upon the pathology, is to remove the suppurating mucous membrane as completely as is consistent, to render the uterine cavity as aseptic as possible, and if necessary, to establish drainage. The depth of the utricular glands is so great and their calibre is so small that it is imperative to remove them before cure can be effected. To use caustics of sufficient strength to destroy the hypertrophied tissue and to kill the bacteria, is probably certain to prevent perfect regeneration of the endometrium.

The belief is almost universal that the curette is the best agent for the removal of the suppurating membrane in chronic septic endometritis. Observations have been made which show that the endometrium is perfectly regenerated after curettage, and that the time necessary for the accomplishment of this regeneration is about two months.

A. Martin believes that curettage can be more thoroughly done with the blunt than with the sharp instrument. Thomas prefers the blunt wire curette. In the hands of an experienced operator, the general opinion is in favor of the sharp wire or spoon curette, notwithstanding the opinions of Thomas and Martin. The dull curette is the safer instrument for the inexperienced operator.

Curettage can be thoroughly done only with free dilatation and under narcosis. The technique of curettage has been so frequently and so well described that it is not necessary to give it in detail. I desire, however, to emphasize the necessity of using a cervical speculum in order to thoroughly pack the uterine cavity, and not simply plug the cervical canal.

After curetting, a mild caustic or active antiseptic should be used, because it is impossible to remove all the mucous membrane with the curette. Any one who believes that this is possible would be convinced of his error if he would curette a uterus, and then remove the uterus and examine its cavity.

After curettage, Dr. Henrotin advises the use of peroxide of hydrogen. This would seem to be an effective remedy. Carbolic acid, tincture of iodine and bichloride of mercury are also valuable remedies for the eradication of the disease in portions of membrane not removed by the curette, and for the disinfection

tion of the uterine cavity. Bichloride of mercury may also be employed for irrigation as has been frequently recommended. Iodoform or other antiseptic gauze packing may be used on account of its medicinal action on the walls of the uterine cavity. A gauze drain will probably never do harm and may do much good. If, however, the cervix was patulous prior to the dilatation, and if the position of the uterus favors drainage, it may be dispensed with.

How long should the gauze packing be allowed to remain? This should depend upon the condition of the surface of the cavity. If it be perfectly aseptic when the gauze is inserted, as it probably never is, the packing may be left one week or more as has been recommended. Otherwise, if it is left more than two or three days, secretions which form on the surface of the gauze may decompose and reinfect the uterus. I am, therefore, of the opinion that gauze should never be left in the uterus more than two or three days without renewal.

The after-treatment of curettage probably does not receive, as a rule, the attention which is its due. If the uterus does not act as an automatic drain, the gauze packing should be continued as long as the discharge persists, and should be renewed often enough to prevent decomposition. If there is a discharge of pus, antiseptic intra-uterine irrigation should be continued daily until the discharge ceases. If a muco-purulent discharge recurs to any extent, a second curettage is probably imperative in order to effect a cure.—*American Gynecological and Obstetrical Journal*

Therapeutic Hints.

DUSTING POWDER FOR ECZEMA.—

℞—Pulv. amyli ℥ j.
 Pulv. zinci oxidi ℥ ij.
 Pulv. camphoræ ℥ j.

M. Sig.—For external use.—*Hyde.*

The subjective symptoms of urticaria may be greatly relieved by applying the following as a lotion:

R—Acidi carbolici	3 j-ij.
Acidi borici	3 iv.
Glycerini	3 j.
Alcoholis	3 ij.
Aquæ	5 xiv.

M.—Stelwagon.

SICK AND NEVOUS HEADACHE.—Dr. Aritman advises the following for migraine:

Diminish the hyperesthesia of the painful area by a spray of some local anesthetic, and immediately afterwards practice compression of both temporal arteries by means of rings of cork held in place by a gauze bandage. Administer the following in four doses at intervals of two hours.

R—Antipyrin	grs. viijss.
Sparteine sulphate	gr. ½.
Caffeine citrate	gr. jss.

—*Med. Review.*

Dr. Stewart again called attention to the necessity of prescribing *large doses of hydrochloric acid* in cases of deficient secretory activity in which this agent may be indicated. He stated that such minute doses as are commonly employed in cases in which the acid is supposed to be indicated, cannot but be totally without effect, unless taken after a small meal. He remarked that it has been again and again demonstrated that it requires no less than four and one-half liters of $\frac{2}{10}$ per cent. absolute HCL to saturate 100 grams of dry proteid, and yet, with this amount, at the end of digestion none is perceptible to our color reagents as free acid. When small doses are given, such as are commonly prescribed, no digestive effect can be expected from them. If benefit is experienced, if not purely psychic, it is only through the stimulative effect of the acid on the gastric motility and upon the secretion of HCL in the stomach. Dr. Stewart states that he has frequently called attention to this point in his teachings and papers, but as yet it is little regarded in this country or abroad.—*Philadelphia Polyelinic.*

CONSTANT IRRIGATION IN SEPTIC PUERPERAL CASES.—In the *Journal de Médecine Militaire*, p. 360, 1896, GLIAKOFF describes a method of treatment of puerperal cases by constant irrigation with solution of carbolic acid and permanganate of potash. A one-per-cent. solution of carbolic acid was first employed, and followed by a weak solution (rose-colored) of permanganate of potash. The irrigating fluid was kept at 105°F., and allowed to flow for six hours. The results were excellent. Only one patient of the twenty-eight thus treated died, and she was not treated until three weeks after labor, and had pyemia. The analgesic effect of the irrigation was marked.—*Med. News.*

Miscellaneous Items.

Dr. John Sweany has removed from Berea to Leaksville, N. C.

The daily papers report two successful cases of tracheotomy in Charlotte, in one week, for the removal of a grain of corn from the trachea.

THE LICENSE TAX.—In the report of the Auditor of the State for the year ending November 1896, he says that there were received from doctors, lawyers and dentists \$18,790. He adds "it ought to be some comfort to learn that, as the tax returns show, there are only 1879 doctors, lawyers and dentists in the State." As the doctors and dentists will just about make up this number, the probability is that the lawyers of the State made it a rule not to pay the tax.

BARBAROUS WARFARE.—Telegraphic reports say that the Spanish forces attacked a hospital and after defeating the small force that was guarding it, shot down the doctor, who appeared wearing the Red Cross uniform and waving a white flag. Not being dead they dispatched him with machetes, and then murdered the hospital nurses and other attendants and patients in the same

way, and then set fire to the building. It were better for civilization that a country which permits its armies to carry on such a war be swept out of existence. The time has come when the United States should not sit idly and have such tragedies enacted under her very eyes.

THE BUBONIC PLAGUE.—An Egyptian Committee, appointed for the purpose are visiting the Red Sea ports to make arrangements for checking the advance of the bubonic plague in that direction. The plague is still raging in Bombay and other parts of India, and the death rate is very high.

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

MARINE HOSPITAL SERVICE—For the 15 days ended January 15, 1897:

Bailhache, P. H., surgeon, detailed as chairman board for examination of officers for promotion and candidates for appointment as assistant surgeon, January 4, 1897.

Stoner, G. W., surgeon, detailed as member board for examination of officers for promotion and candidates for appointment as assistant surgeon, January 4, 1897.

Kalloch, P. C., passed assistant surgeon, detailed as recorder board for examination of officers for promotion and candidates for appointment as assistant surgeon, January 4, 1897.

Cofer, L. E., assistant surgeon, relieved from waiting orders and directed to proceed to San Diego, Cal., and assume command of service, January 11, 1897.

Gardner, C. H., assistant surgeon, to report at bureau February 3, 1897, for examination for promotion, January 6, 1897.

Gardner, C. H., assistant surgeon, granted leave of absence for fifteen days on completion of examination for promotion, January 11, 1897.

Blue, Rupert, assistant surgeon, to report at bureau February 3, 1897, for examination, January 5, 1897.

Oakley, J. H., assistant surgeon, to report at bureau February 3, 1897, for examination for promotion, January 5, 1897.

Sprague, E. K., assistant surgeon, to report at bureau February 3, 1897, for examination for promotion, January 5, 1897.

Prochazka, Emil, assistant surgeon, to report at bureau February 3, 1897, for examination for promotion, January 5, 1897.

THE NAVY.—For the week ending January 23, 1897.

Assistant Surgeon H. LaMotte, detached from treatment at naval hospital, Philadelphia and ordered before retiring board, Washington, January 26, then home and placed on waiting orders.

THE ARMY.—From January 7, 1897, to January 20, 1897.

January 2, 1897, leave of absence for one month is granted Maj. Jas. C. Merrill Surgeon U. S. Army.

January 7, 1897, Capt. Robert B. Benham, Assistant Surgeon U. S. Army retired from active service by reason of disability.

January 8, 1897, Capt. Eugene L. Swift, Assistant Surgeon U. S. Army, has been granted further extension of sick leave absence of two months.

Leave of absence for two months, to take effect on or about January 18, 1897, is granted by the Secretary of War to Maj. Philip F. Harvey, Surgeon U. S. Army.

Reading Notices.

THE PRESENT PREVALENCE OF LA GRIPPE.—“The following suggestions will be of value at this season. The pains of acute influenza are something indescribable, especially when associated with high temperature. To relieve these with some preparation of opium is only to increase the cerebral congestion and aggravate the extreme prostration. Sharp, darting pains are no more severe than are the dull, heavy and persistent pains in the muscles and bones which so often obtain in this disease. Clinical reports verify the value of antikamnia in controlling the neuralgic and muscular pains, as well as the fever. In fact, antikamnia may now be called the *sine qua non* in the treatment of this disease and its troublesome sequelæ.

“It seems hardly necessary to indicate the conditions, when the use of two such well-known drugs as ‘antikamnia and quinine’ will be serviceable, nor the advisability of always exhibiting ‘antikamnia and codeine’ in the treatment of the accompanying neurosis of the larynx, the irritable cough and bronchial affections. Relapses appear to be very common, and when they occur the manifestations are of a more severe nature than in the initial attack. Here the complications of a rheumatic type are commonly met and ‘antikamnia and salol’ will be found beneficial. Antikamnia may be obtained pure, also in combination with the above drugs in tablet form.

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FEBRUARY 20, 1897.

Vol. 39, No. 4.

NORTH CAROLINA MEDICAL JOURNAL.

PUBLISHED SEMI-MONTHLY AT \$2.00 PER ANNUM.

Robert D. Jewett, M.D., Editor.

[Entered at the Post-Office at Wilmington, N. C., as Second-class mail matter.]

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The profession have tried, says the THERAPEUTIC GAZETTE, to aid the digestion of starch for many years by the use of various preparations of malt, which have been largely given with little direct good as a result, for the diastatic properties of most of these preparations are so slight as to render them practically of no value as digestants, whatever may be their usefulness when acting as nutritives. Within the past few months a Japanese investigator has obtained such a valuable diastatic product that his researches deserve careful study and his results thorough trial. If, as he has apparently proved, we possess in Taka-Diastase a starch-digestant equal to or exceeding in power pepsin or pancreatin for proceids, we have made an extraordinary gain in therapeutics, for we are now able to relieve a large number of persons suffering from faulty digestion of starch, and can aid our patients during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods.

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NORTH CAROLINA MEDICAL JOURNAL.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND
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Original Communications.

SORE THROAT—ITS NATURE—DIFFERENTIATION— INFLUENCE OF CLIMATE AND TREATMENT.*

By Dr. J. F. WOODWARD, Norfolk, Va., Late Adjunct Professor of Diseases of Eye, Ear, Nose and Throat in the University College of Medicine, Richmond, Va., etc.

THE average man very promptly recognizes any departure of the general system from its normal state, and is so sensitive to abnormalities that in most cases he can render at once a very satisfactory opinion of causes and effect; but when it comes to special senses he will suffer untold discomfort for indefinite periods before a specialist is called in.

To most people "I have a sore throat" conveys no idea whatever of the trouble, and generally means that there is somewhere in the throat a sore—without an idea as to its location or significance.

In point of fact, there seldom occurs such a thing as a sore in the throat as a primary symptom. For in the majority of cases it means only a neuro-arterial change in the superficial mucous membrane with the consequent discomfort, and it is only when it involves the deeper tissues that a real sore results.

Therefore, to the general practitioner this every-day term is of little importance, that is, he does not recognise its usefulness as a symptom or a disease, and looks upon it as a common some-

thing, with an unknown cause and of no special importance. This, in my mind is a great misfortune, for in the line of premonitory symptomatology sore throat is an index to a volume of disorders to which we can turn with a great deal of satisfaction to ourselves, and often with benefit to the welfare of our patient's mind and body.

It should not be looked upon as a mere matter of "wet feet," as there are many real diseases of the throat that cause pain and discomfort, and these should be differentiated from true sore throat.

Examine closely the mouth, the tongue, and as much of the throat as can well be seen by the use of the tongue depressor, day-light or lamp, and learn the difference between a normal and an abnormal throat—not rest easily satisfied to base the sum and substance of your diagnosis upon a coated tongue and the thermometer reading. Parts most easily seen are just below the level of the uvula, the sides of the pharynx and the tonsils with their anterior and posterior pillars. And you will do well to study in all cases, the changes that precede, accompany, and follow abnormal conditions of the normally slightly reddish mucous membrane, broken into folds and fissures of glandular tissue—interspaced by a network of arteries and veins—dotted with small clear whitish follicles which take an active part in all sore throats—the tonsilla pharyngea.

But the uvula, posterior surfaces of the pillars, the intertonsillar spaces, tonsils, base of the tongue and the upper laryngeal mucous membrane are the parts affected in ordinary sore throat.

The symptoms of sore throat are common and known to all of us, but for the sake of differentiation and curtailing what would otherwise be a very prolix paper, I will give a list of diseases of the throat and fauces which have all of the symptoms in common with ordinary sore throat, yet are diseases of a **graver nature**, and when neglected may cause serious trouble. And in referring to these symptoms only those characterizing the peculiar nature of the case will be given.

Diphtheria.—After the first stage, pain upon clearing the throat and swallowing.

Acute Follicular Pharyngitis.—Dryness and pricking sensation in throat—later severe pain and swelling.

Acute Follicular Glossitis.—Soreness about ear tubes and radiating throat pains.

Chronic Follicular Glossitis.—Pricking sensation with or without pain on swallowing.

Scrofulous Sore Throat.—In advanced stages there are subjective throat symptoms.

Acute Tubercular Sore Throat.—Severe pain when talking or swallowing.

Syphilitic.—Primary stage with ulceration, pain; secondary, dryness, soreness and pain on swallowing.

Acute and Chronic Inflammatory Œdema of Uvula.—Pain and discomfort on eating, drinking etc.

Leukoplakia Buccalis.—This is a rare disease and symptoms are obscure, but hot foods and drinks cause pain, and pain is constant when fissures occur.

Acute Tonsillitis.—Constitutional symptoms pronounced, also pain and fever.

Phlegmonous Tonsillitis.—Pain on swallowing, mastication etc.

Hypertrophied Tonsils.—Pain and pricking on talking and swallowing.

Mycoses of Tonsils.—Cause some pain and discomfort.

Cancer of Tonsil.—Pain, severe, while general symptoms are wanting.

Tuberculous Ulceration of Tonsil.—Exceedingly painful on swallowing, while cough may be absent.

Cancer of Pharynx.—Very painful after ulceration sets in especially on deglutition.

Pharæsthesia of Pharynx.—Sense of pin or foreign body in the throat.

Neuralgia of Pharynx.—Pain, same as neuralgia elsewhere.

Disease of Valleculæ of Tongue and Pyriform Sinuses of Larynx.—Pain and pricking sensation.

The same thing obtains in the more common laryngeal affections. Scalds, burns, irritant drugs etc., cause pain, burning and pricking sensations of throat.

If you have followed me closely, you will see that there are some fifteen or twenty diseases of the throat and fauces that

begin and have as their premonitory or accompanying symptoms the different varieties of sore throat. This, while showing the necessity of close observation, leaves us very few manifestations that we can call *pure and simple sore throat*; yet there are such cases whose presence is not alarming and whose treatment oftentimes subjects the patient to unnecessary discomfort.

It is just such cases as these that I wish to bring forward in this paper. And to aid in this, you will find below several interesting cases with symptoms not new and unique whereby a physician might at first sight diagnose the case, but where prompt recognition meant a speedy cure.

CASE 1.—L. B. aet. 27—farmer and merchant, present and previous history good as to any signs of a specific taint or diathesis, except he thought that he had had rheumatism; family history excellent—has had what he called trouble on swallowing and sore throat for several years every spring and winter; fleeting pains in the throat severe at times, radiating from about the hyoid bone, exaggerated upon pressure and at times shifting to tongue and neck; slight cough at times but no paroxysms—tonsils, naso-pharynx and uvula normal except slight roseat congestion, turbinate hypertrophy with some rhinitis. This case I diagnosed as a chronic sore throat depending upon a rheumatic diathesis for its peculiar nature. The usual rheumatic treatment with simple oil spray to the throat and nose cured the patient in a few weeks. He of course threw away his gargles, and discards the idea he had received from his family physician that probably he had a tuberculous throat.

CASE 2—J. A. aet. 25—negative history, no diathesis, with morphine, whiskey and tobacco habit; acute inflammation of entire mucous membrane of throat and fauces, varix of pharynx, turbinate hypertrophy etc. This condition would last for a few days and pass off as quickly as it came showing a decided nervous influence. This was an acute sore throat engrafted upon and exaggerated by the presence of an old chronic pharyngitis. Simple oil spray was all that was needed along with the other treatment for morphine etc.

CASE 3.—S. R., aet. 18—apparently healthy, slim and family history of tuberculosis, nasal twang, effort to talk, said he had a sense of fullness in throat all the time, and at times hoarse-

ness; pain and hemorrhage as he thought from the lungs; general discomfort. Examination of nose showed hypertrophy of the right middle turbinate; larynx showed general hyperæmia, pharynx and tonsillar pillars slightly congested, base of tongue showed large *lingual tonsils* (varix) rising in folds, sessile and cumulous interfering with the free action of the epiglottis. These were removed with a nasal snare, bent tube—after two weeks the patient was very much improved and in a month was well and no sore throat.

CASE 4.—Mr. R., and Mr. S.—two cases who were burnt with chromic acid for turbinate hypertrophy—artificial pharyngitis was produced in both cases upon an old chronic follicular pharyngitis. While they had typical sore throats there was no need of active treatment as they cleared up in a few days under oil spray.

CASE 5.—Mr. E. R.—applied to me few days ago saying that he “missed fire” whenever he attempted to reach high notes. While not a robust man his general health was good, he had a history of tuberculosis; a desire to hark all the time, pharynx dry and glazed and upon the slightest change in the weather his throat becomes sore and painful. He had just what we would expect—“clergyman’s” sore throat, (chronic follicular pharyngitis) with slightly elevated, yellow capped follicles here and there over the pharynx whose bases were surrounded by a hyperæmic zone which shaded off into a thin and whitish intervening mucous membrane; several very large and tortuous veins starting from one or more of these follicles coursed in a zig-zag manner across the pharynx losing themselves in the pharyngeal wall; there was seen also muco-purulent strings of whitish matter hanging from the roof of the pharynx, disorganised nasopharyngeal secretions. In this case there was no need of treating the sore throat as a simple case of sore throat, but as a chronic follicular pharyngitis. We see such cases as these every day and it is a bad habit to call them all “sore throat,” for sore throat is more of a symptom than a disease.

In the *acute fevers* it is almost invariably a precursor, accompanying symptom depending to a great extent upon the previous condition of the throat for its degree of severity.

There are certain diseases which should never be neglected,

for they are diagnostic and characteristic—scarlet fever, diphtheria, small pox, syphilis etc.

As you have seen, my paper does not refer to the regular throat diseases, but to an acute inflammation, superficial in nature affecting the superficial mucous membrane of the pharynx palate, tonsils, larynx, base of tongue and fauces.

It is seen most frequently in children and young people, those whose general systems have lost a certain amount of physical resistance, or those suffering from acquired and inherited taints and diatheses.

At first there is a simple hyperæmia, then a decided congestion with swelling and pain more or less severe; superficial blood vessels in high state of engorgement which finally involves the muscular and the glandular tissue. This condition appearing as a simple uncomplicated trouble, or engrafting itself upon an already diseased throat, whatever there are found the ordinary causes—exposure in and out of doors, over use of stimulents of any kind, tobacco etc., scanty and improper dress—and there is a special proneness when there are found the predisposing diatheses i.e., scrofulous, syphilitic, neuropathic, lithæmic and rheumatic. But there are climatic exciting causes. Sudden rapid and radical changes in the weather are trying upon the diseases that refer to the mucous membrane. To enjoy the greatest immunity from throat and nasal diseases uniform barometric reading, a minium number of rainy days, staple relative humidity, 70 to 80 with an average mean winter temperature of 45 to 55 F. and where the highest mean temperature does not set in until late in the summer and the lowest does not set in until late in winter. This mild and equable climate allows regular gradation of temperature from summer to winter and vice versa, thereby gaining the maximum effect of the sun's rays through the attenuated atmosphere. Excess of moist atmosphere with sudden temperature changes are conducive to nasal, pharyngeal, laryngeal and tonsillar affections.

That the effect of warmth and light upon the skin is to stimulate by reflexes the entire circulatory as well as the nervous system is a well known fact, while Blacker and Clark of London claim that the sunlight is an indispensable factor in climatic cures. Darlington of Arizona proves this, so far as it regards

throat troubles, by saying that an excess of moist air and vapor thrown off by the skin and lungs, the mucous membrane of the air passages becomes dry, the rapid evaporation of water leaves a large quantity of mucous behind, this becoming inspissated plugs up the secretory ducts and pharyngitis, rhinitis, tonsillitis and otitis will follow. Rogers of Denver, lays stress upon the point that moist atmosphere is an active agent in propagating the diphtheritic germ. Why should it not as well act favorably toward other germs?

At low, level localities where the atmosphere is above normal all the time the air never becomes so attenuated that the sun's rays produce their full force, and there is a very decided daily variation of temperature 80 to 50F. Colds and consequent catarrhs and neuralgias are very common. Yet we are blessed in having the salt air with its full per cent of ozone which is an antiseptic, and also nearness to the sea prevents sudden temperature fall by radiation. Salt air is a well known antiseptic and if our temperature, humidity and wind pressure remain normal there is no reason why we should have an over production of colds and catarrhs.

In closing I feel that I would be derelict in my duty did I not again call your attention to the importance of recognizing the unique and peculiar symptoms of *lithaemic* and *rheumatic* throats, and also that the symptoms are not always in keeping with the gravity of the cases.

TREATMENT- How to treat these cases is all important. It is to the joint efforts of the doctor and the individual himself that we must look for the actual development of a tendency to correct habits. Let not the physician make an aimless appeal to his patient, whose interest in the matter is not awakened, and even if awakened in many cases he or she will have the inclination to appreciate the high demand for care and discretion-leaving it all to the doctor. As we have seen from the nature of sore throat intelligent instruction from the physician will do more good than all the gargles and lozenges made.

Symtomatic treatment is of special service. If there is found rheumatic, tuberculous, lithaemic or any diathesis treat each individual case as it demands. Direct the patient to wear warm clothing, avoid exposures of all kinds, but do not carry even

this to an excess. For the strong and robust a hot bath followed by a cold sponge and a stimulant, but the delicate should avoid taking baths indiscriminately; for them, a warm bath with a rub down is preferable. Stimulant doses of calomel, but not drastic purges; quinine and hot punch, or sucking ice and ice to neck, small doses of tr. aconite and tr. belladonnae. I do not give the opiates but instead use codeine and the bromides.

The treatment is intended to be palliative throughout. The different diseases of the throat that tend to excite and exaggerate sore throat should be looked after. Avoid the too common use of cocaine just because it is immediate in its effects and thereby makes a good impression on your patient; it can be combined with other drugs very successfully.

Demulcent drinks, flax-seed tea, rice water, and sedative lozenges and troches. Chlorate of potash is a very commonly used drug, but it does little or no good locally and should be given internally as a refrigerant diuretic, increasing oxidation, therefore, the amount of urea and uric acid.

Cure the cause and not the local manifestation if you would relieve your cases of sore throat. So not neglect the small things, for only the doctor who adds to tireless energy, scrupulous attention to detail will ever hope to excell as a diagnosis and a practitioner.

Selected Papers.

TREATMENT OF DYSMENORRHEA WITH THE GALVANIC CURRENT.*

BY ONSLOW ALLEN GORDON, M.D., Associate Surgeon to St. Mary's Hospital.

THERE seems to be a wide difference of opinion as to the pathological conditions prevailing in dysmenorrhea. That

*Read before the Brooklyn Gynecological Society, May 1, 1896.

there are several etiological factors all agree, whether a larger number of cases belong under this head of neuralgic, obstructive, congestive, or a hyperesthetic condition of the endometrium has not been satisfactorily determined. It is reasonable to believe that any one of the above pathological conditions would cause painful menstruation. I am inclined to think that a large majority of cases are due to endometritis. That a very large number of women suffer intensely at the menstrual period every physician knows. It is not the purpose of the writer to enter into the question of pathology or the different methods of treatment of this distressing complaint, but simply to give expression to views from a limited experience with the galvanic current in the treatment of the same, and invite discussion on the subject by fellows of this society whose experiences are wide and whose opinions are valued. My experience with galvanism dates back about three years, and while I have not as many cases to record as some others, I have used it long enough to convince me that for cases not due to a faulty condition of the nervous system or an impoverished state of the blood, it is the best mode of treatment, and that it will give relief in more cases than any other agent.

Seventy-five per cent. of my cases have been relieved from the first, and twenty-five per cent. have required no treatment after eight or ten weeks. One or two of the greatest sufferers that have come under my care have been quite free from pain at the menstrual period for nearly three years; others return for treatment before the expected period once a month, while some are seen only once in five or six months, and report much relief.

It has been my custom to apply treatment once a week for a month, and then a few days before menstruation for a few times, after which the frequency is in accordance with the indications. I believe, however, that better results can be obtained by treatment twice a week for the first few weeks. My method of application does not differ from many others. I have a Law battery of sixty cells, and use an electrode which very closely resembles an ordinary uterine sound. Some prefer a clay electrode for the abdomen, but I have so far used one which I had made to order from copper, about four by six inches, and cover it with absorbent cotton for each patient. The uterine elec-

trode is connected with the negative cord and inserted into the cervical canal, as far as it will go without pressure, and the current turned on until fifteen or twenty milliamperes are reached. As a rule the electrode will glide past the internal os before fifteen milliamperes have been turned on; I have never found it necessary to use force or hold the cervix with a tenaculum. Care should be taken that the point of the sound does not rest against the fundus. I have found five or six minutes long enough for each application. Antiseptic precautions are observed throughout.

I will relate the history of two cases which I believe have been under observation long enough to justify me in forming an opinion as to the merits of the treatment.

CASE 1.—Miss C., aged twenty. Menstruation began at twelve years. Was not very painful for the first few years, when it gradually became worse, until the pain was very severe for the first three days. The flow was about normal as to quantity. She tried all sorts of medicine, and finally settled down to paregoric, which she was using in large quantities when she came under my care. I applied the galvanic current once a week for four or five weeks, then before the expected period for a few times (not more than ten treatments). Her first menstruation after treatment was begun was painless, and she has not found it necessary to take a sedative of any kind or remain in bed for the first day, as was her custom formerly. A period of two years has now elapsed since the first treatment. I saw her the other day, and she says she has very little trouble now, and is able to carry on the work of a stenographer with no interruption at the time of menstruation.

CASE 2.—Mrs. S., aged twenty-three years. Menses began at fourteen. Painless and regular for the first three years. Dysmenorrhœa began at seventeen and became more pronounced at each succeeding period. Pain would last about one day. For three or four hours it was excruciating. This woman was a patient of mine for three years before I treated her with electricity, and I was often called to attend her in these paroxysms of pain, and I have never seen suffering more intense. The only relief came from the hypodermic injection of morphine. She had the first treatment with galvanism in May last, in which

month she had three applications; two in June, and one in July. Menstruation after the first treatment was without pain, and there was entire freedom from pain for eight months, when there was a partial return, but one treatment before menstruation in September, November, December, and January has afforded relief up to the present time, which completes a year from the beginning of treatment (ten applications in all).

In a recent paper by Dr. Massey he reports thirty-two cases treated by electricity, and twenty-seven cured. The following are extracts from his paper: "That menstrual pain is rarely, if ever, associated with obstruction is more definitely determined to-day than ever." "In nearly nine-tenths of the cases occurring in single women an endometritis is the exciting cause." At no time has it been necessary to use force to insert the electrode. "The purpose of the electrical treatment is, therefore, not dilation, as has been incorrectly assumed by some physicians, but the cure of the congestion, inflammation, or malnutrition on which the condition depends."

It seems to me that the following advantages may be claimed for this mode of treatment:

1. Patients will submit to electrical treatment when an operation would be declined.
2. It can be carried out in the physician's office without an anæsthetic, as it is attended by very little, if any, pain.
3. Any physician with the necessary appliance and a moderate knowledge of gynecological work can apply the treatment without assistance.
4. Statistics show that the immediate and remote results are better than from any operative procedure.

DISCUSSION.

Dr. McNaughton: Mr. President, I have used galvanism for several years for such cases as the doctor has related, and on the whole it has been very satisfactory.

Several years ago I made many examinations of women who had dysmenorrhea. These were made during the menstrual period, and the changes in the uterus during menstruation I do

not think are appreciated by physicians who have not made such investigations. In those having flexions the uterus becomes soft, and the canal becomes practically straight. As soon as that occurs the pains are diminished.

I think the passing of an electrode is like passing a sound, of course, plus the therapeutic effects of the electricity. I believe it is an excellent treatment. There are objections to placing on your table once a month, or twice a week, a young girl, and most of them are neurotic, and I have had some very unpleasant experiences in using electricity in these cases; so much so that I have declined to use it in some instances. It excites attention to that part, and there is, of course, the objection to making the examination, plus the excitation of the electricity. I think it is better and safer to administer an anesthetic and dilate the canal. Although, even after doing that, I have used electricity with benefit. I believe that endometritis is mostly due to flexion, and those patients, unless the deformity is corrected, are in danger of developing fibroids. My later experiences have only proven what I stated in a paper read some months ago.

Dr. W. H. Skene: I have used galvanism a little, but have been less fortunate than Dr. McNaughton. In cases of flexion I have had very little result from it, but neurotic cases and cases of malnutrition have been greatly benefited and relieved. In flexions I have had no relief at all, except by dilating, and using electricity after that.

Dr. L. G. Langstaff: I have not had a wide experience in using electricity for dysmenorrhea. I have used it in a few cases, with a good result in one or two. I think it is an agent which should be used as any other therapeutic agent—in selected cases. I think in selected cases you can use it with good effect. The objection to using it in a virgin is a decided objection, and it has been my habit to get a patient of that kind to try medical remedies first, and if they failed, then to try electricity or surgical procedure.

Dr. Kortright: Will Dr. Shoop inform us of the indications for electricity?

Dr. Shoop: That must be determined by experience. I have

not classified the cases in such a way as to form a working-guide.

Dr. Chase: I would like to raise one question, which perhaps the reader or Dr. McNaughton will answer. How much risk there is in the use of electricity in the treatment of these cases provided there are pus accumulations in the tube or pelvic cavity; whether they deem it safe and wise treatment unless they can, by bimanual palpation, or other methods, determine the absence of pus accumulations in the pelvic cavity. I would like to know how they regard the use of the electricity under those conditions—whether it is safe or not?

Dr. Gordon: In answer to the question asked by Dr. Chase, I would state that I have never treated a patient with electricity that had pus in her tubes, to my knowledge, and I have never heard of any accident following the use of electricity in such cases.

Dr. McNaughton: I should say you would rarely be called upon to treat a case of that class. They are not likely to have uterine dysmenorrhea in pyosalpinx; that the dysmenorrhea which might occur under those circumstances would be more ovarian, so called, and I do not believe electricity would do very much good. I do not know that it would do any harm.

There is one point, Mr. President; I should like to state that I believe if a young girl is suffering from dysmenorrhea, and it continues, that the physician should make a diagnosis of that case. If it is due to flexion it should be discovered early and corrected, if possible, and in that way save future trouble. I believe we make a mistake on account of the delicacy, etc., in not making a diagnosis of these cases. It should be made in some way. If it can be done through the rectum, well and good, but if not, an anesthetic should be given and a diagnosis made. It is not wise to allow her to go on years and years with an upset nervous system, interfering with the work she may be called upon to do. If she has got dysmenorrhea commencing, due to flexion, it is wrong to allow it to go on without attempting to correct it, and I believe an examination should be made.

Dr. L. G. Baldwin: I agree with what Dr. McNaughton has said. The danger of examining young girls or unmarried women is overdrawn and overestimated. If a girl is sick enough to go

to a doctor, that doctor should have the privilege of finding out what is the matter with her, and he should not guess at it. I have never had trouble to get them to submit, for if they are suffering they will do anything to get relief. I find if you go right about it, as you would examine the throat, or chest, or arm, or anything else, they do not think anything about it. But if you give them a lot of preparatory treatment and say, "I hate to examine you—you had better bring your mother," and so on, you get them thinking there is something improper about it; but if you go right at it and examine, as a matter of course, they are perfectly willing to submit to it.

In regard to the question he raised, if you find a flexion it should be cured——

Dr. McNaughton: I said you could treat it.

Dr. Baldwin: You can treat them, certainly, but to give relief, I take it in this discussion, anteflexions are meant more than retroflexions, and in my experience they are hard to *cure*.

Dr. McNaughton: For the very reason that they are postponed too long. If we got them early enough we might do more for them.

The President: (Dr. Matheson) I would like to inquire if any gentleman here has had much experience in making examinations through the rectum.

Dr. L. G. Baldwin: I can say for myself that I have never been able to make out anything except gross pathological conditions through the rectum. Only in one case, and that quite recently, in locating a collection of pus high up on the right side, have I ever been able to gain any positive knowledge by examination through the rectum. Sometimes I have been able to say there was no serious disease, but I seldom get any information that is of value to me in making a diagnosis that was not more easily obtained through the vagina.

Dr. McNaughton: My experience is different, Mr. President. With the patient under ether, your fingers in the rectum, the rectovaginal partition being so thin, I think you ought to make almost as correct a diagnosis in that way as in the vagina itself, particularly if you have your patient anesthetized. I can diagnose flexions through the rectum, and have done it.

Dr. Matheson: When this method is practicable it should be

adopted in the examination of virgins. It seems to me unnecessary in the majority of cases to use an anesthetic in examining for the cause or causes producing dysmenorrhea.

Dr. Chase: I am quite in sympathy with what Dr. McNaughton says regarding the method of making examination. Now, in so far as the facts may be obtained concerning the condition of a woman's pelvis, without instruments—and certainly if one must confine himself to one or the other, he will always use the finger in preference to instrument—there are two conditions which cause trouble. One is the voluntary or involuntary resistance of the patient, and the other is the thickness of the abdominal walls. Now, if you can overcome this resistance, whether it is intentional or otherwise, you put your patient under the most favorable condition for ascertaining in what state the abdominal organs are, and if the woman is not fleshy or the abdominal walls are not thick, I think, with the finger in the rectum, and the abdominal walls thoroughly relaxed and bladder empty, you can ascertain a great deal, but if you attempt that without an anesthetic, unless it is a woman who has control of herself in a way that she thoroughly realizes, the results will be thoroughly unsatisfactory. There is no reason in the nature of things why there should be so much difference between the rectum and vagina, because, as Dr. McNaughton has stated, there is only the thickness of the posterior vaginal wall, and when the muscular structures are relaxed you can tell pretty well what is between the ends of your finger and the hand outside.

Dr. Maddren: I take it, Mr. President, that your question applied to those who are not given an anesthetic. I think we may also presume that it may be first examination, and you would meet with the resistance the gentlemen have spoken of. It is difficult to find out very much without an anesthetic, because of the resistance.

I would like to ask Dr. McNaughton if generally he is satisfied with his rectal examination, and does not make a vaginal examination? That, I think, would be a test of the efficacy of the procedure.

Dr. McNaughton: I do not know, doctor; I prefer the vaginal route. I did make such an examination the other day. I made

out an anteflexed uterus. Of course it is easy enough to make out a retroflexion. The anteflexion was outlined without an anesthetic, but it was a favorable case, with very little tissue between my fingers. I could almost have done it without a rectal examination.

Dr. Maddren: I have tried to do without an anesthetic, and generally ended in making a vaginal examination or resorting to the anesthetic in order to make a diagnosis.

Dr. Gordon: There is very little to be said in closing except to thank the gentleman who have discussed the paper.

In regard to the treatment of young girls I believe that local treatment should be the last resort. One case I had under observation three years. She married and then I began the electrical treatment. But still I believe that if a young girl is suffering so that she requires opiates, and opiates are the only thing that will give relief, we are justified in using electricity to save her from becoming an opium fiend.

In regard to rectal examinations, I do not know what the experience of others has been, but without an anesthetic I find greater reluctance on the part of the patient, and more disgust from the rectal examination than from the vaginal.

OPIUM POISONING IN AN INFANT—Dr. Kaplan (*Pediatrics*) warns against the habit of mothers and nurses administering to infants patent medicines which contain opium. He was called to see a child, aged three months to whom the mother had administered a dose of patent cough balsam. The child's skin was cold and covered with a clammy sweat; the pulse hardly perceptible and slow; the respirations were shallow and very slow, about ten to the minute, and the pupils were contracted to the size of a pin head. The child recovered under suitable treatment. The same medicine had been given to a child of four years without bad effect, but the infant showed signs of distress immediately after taking it.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

THE SPREAD OF PLAGUE.

As the plague in India is the subject of predominant interest at the present time, the recent articles by Dr. James Cantlie, in the *Lancet*, who has had exceptional opportunities for studying the disease in Hong-Kong, are worthy of careful attention.

Dr. Cantlie concludes from the study of the infection in animals; (1) that the rat is the animal most liable to be attacked by plague; (2) that rats suffering from or dead from plague may infect other animals, such as snakes and jackals which consume rats; (3) that rats are always affected by a disease similar to the plague at the same time that man suffers; (4) that the rat may infect man, but the means of conveying the contagion is not known; and (5) that during the prevalence of pestis minor (benign plague) rats do not die.

The incubation period of plague may be fixed at from three to six days whilst an epidemic rages, but the evidence he had

within the last few weeks from Calcutta renders the period of incubation of ambulatory plague (pestis minor) uncertain.

The onset of the disease is usually sudden and severe. The patient is seized with headache, fever and prostration and compelled to take his bed. In a few hours or a few days, a swollen gland develops, and the disease runs its course. But there are cases on record where high fever existed and the patient did not even feel ill, or where with swelling of the glands there was no fever. In many cases the bubo precedes the fever, the patient suffering no serious inconvenience. The glands may be affected a fortnight before the disease declares itself in the usual way by headache, fever, and prostration.

As for the varieties, there may be (1) abortive or larval plague (ambulatory plague, or pestis minor); (2) typical plague; and (3) fulminant plague. The evidence points to a very close relationship between the benign and the malignant polyadenitis. The present belief, Dr. Cantlie says, is that the mild develops into the malignant type, and when that subsides it is once more deprived of its malignancy and becomes benign. It has, however, been observed; (1) that long periods of time may intervene between the prevalence of specific glandular swellings and the outbreak of malignant plague; (2) that independent outbreaks of glandular swellings (pestis minor) may come and go and no plague supervene. The latest evidence from Calcutta would indicate that the same bacterium now known as the *diplo-bacterium of plague* is found in the blood and swollen glands in both the benign and the malignant forms.

With regard to this particular bacterium, it was found to vary somewhat in size according to the staining method employed, being described both as a diplococcus and as a short bacillus with the ends somewhat rounded and a clear space or band in the centre. Dr. Gersin, when in Hong-Kong, experimented with the soil of a plague-stricken area, and found a bacillus resembling Kitasato's diplococcus met with in the human body in plague subjects. He also noted that the bacilli of the soil and body occasionally behaved similarly in culture experiments, but that the culture specimens of soil bacilli were innocuous in animals.

With regard to the original source of the infection, it is note-

worthy that the dominant idea has ever been that the contagion was of miasmatic nature and rose from the soil, and there are as yet no facts to oppose this view. The medium of the soil may be to the infection of animals as the medium of water bearing the carcass of the dead mosquito is to the filarial—infected human being. Not only may it serve as a mere vehicle, but as a host, in which the parasite passes through a stage of its evolution. As to the *medium* of spread of plague—there is no doubt that contagion—that is, intimate, prolonged contact as mother or nurse and child—is a potent factor, but it is probably not the only factor in the transmission of the disease. Plague is perhaps the slowest travelling disease known; it may take months and even years to extend a few miles. It took ten months to travel from Hong-Kong to Maceo, a distance of thirty miles. Plague confines its workings to the Old World and does not cross the ocean, and travels backward and forward in the belt of its selection; but this cannot be the only means of travel, otherwise how did the islands of Britain and the Canaries ever become infected at one end of the Old World and the islands of Hong-Kong and Formosa at the other? Were the soil the only producer or infector, all islands in the area ought to be immune. This not being so, it follows that the poison must be carried by human beings, by animals, by clothing, or by food. That the poison conveyed by them may require the soil as a medium to reproduce the infecting bacillus may be quite possible, but that there is some other medium than the soil capable of transmitting the disease is quite evident.

Climate and weather have a certain influence on the spread of plague. The bacillus of this disease flourishes best in a warm, moist atmosphere; dry, hot air kills it. The disease disappeared in Canton when heat and moisture were about 90°F. throughout the district. It thrives best at a temperature between 80° and 85°. But heat does not seem to be essential to the appearance of the plague. In Russia it has appeared again and again in winter with snow on the ground. Overcrowding is an important factor in the spread of this disease, another cause is also true of poverty and want. Again and again, as now at Bombay, the coincidence between the prevalence of famine and the spread of plague has been remarked. Filth and bad drain-

age and bad ventilation are also important adjuvants. The evidence from Bombay, Dr. Cantlie remarks, is similar to the Hong-Kong report, and but confirms the state of overcrowding and filth to which Oriental cities even when partially under British control may attain.

Dr. Cantlie thus sums up his studies of the spread of plague:

VARIETIES.

1. The varieties of plague known by the names (*a*) fulminant, (*b*) typical, (*c*) pestis minor are allied.
2. The cause of fulminant and typical plague is a diplo-bacterium in the blood and tissues. The cause of pestis minor may be an allied diplo-bacterium, but with lesser toxic power.
3. An appropriate name for the fulminant and typical plague is "malignant polyadenitis." An appropriate name for the mild variety is "benign polyadenitis."

INFECTION AND CONTAGION.

1. Plague is infectious chiefly by the dust arising during the cleansing of dwelling houses which plague patients have occupied.
2. Plague is contagious by prolonged and intimate contact with the plague-stricken, as in the case of a nurse carrying a child sick of the disease.

DISTRIBUTION.

1. Plague is met with in a definite area of Asia which may be termed the "plauge belt."
2. That the home of the plague at the present day is Mesopotamia and the countries adjacent.
3. From Mesopotamia as a focus the plague may spread northwards to the Caspian Sea, westward to the Red Sea, southward as far as Bombay, and eastward as far as (Formosa) the China Sea.
4. During the present century, plague has shown a western retrocession and an eastern accession of virulence.

THE BACILLUS.

1. Typical plague (malignant polyadenitis) is associated with pestis minor (benign polyadenitis).
2. A bacillus of somewhat similar appearance microscopically is reported to be found in both.
3. The bacilli differ in their toxic powers only.
4. A benign polyadenitis may run its course without being

preceded or followed by the malignant-variety.

5. Malignant polyadenitis may run its course without being preceded or followed by the benign variety.

6. The bacillus of the benign variety attains malignancy by passing through some intermediate host, possibly but not probably the rat.

ELECTION OF SUPERINTENDENTS OF HEALTH.

A bill has passed the lower house of the Legislature providing that the election of County Physician shall be "taken out of the hands of the doctors, and given to the County Commissioners." We suppose that the bill has reference to the County Superintendents of Health, who are at present elected biennially by the Boards of Health of the different counties. This Board is made up of the Chairman of the County Commissioners, the Mayor of the County Seat, the County Surveyor and all of the regularly licensed physicians of the county. From the press reports of the remarks of those taking part in the debate on the bill, the motives of those favoring it are doubtless revealed by the member who argued that the doctors in the State were "generally democrats, and therefore it was impossible for a Republican doctor to get the office." When a doctor is nominated for this office we feel confident that not one physician in ten asks himself the question "Is he a Democrat?" Physicians are entitled to their opinion in political matters and generally have them, but they do not allow them to have any influence in things affecting the lives and health of the people. Republicans and Democrats and Populists stand on equal ground in medical matters, and very few physicians know or question the political faith of their professional friends. We do not know the politics of a half dozen doctors in our own city, except by surmise. The bill mentioned above is an unwise one, and ought to be tabled in the Senate. It is unwise because (1) the office which affects so intimately the lives of the community should be filled by the man who is most capable without regard to his political opinion; (2) the bill takes the selection of this officer

out of the hands of those who are best qualified to judge of the ability of the applicants for the office, and places it in the hands of a purely political body, who are not well-informed in matters pertaining to medicine and the science of sanitation and hygiene; (3) as the object of the bill is to have Republican physicians appointed to the office, and as the proportion of Republican doctors in the State is so small, the opportunity for selecting a suitable officer is proportionately reduced; (4) the income from the office, averaging probably, not more than \$100.00 per annum, is not worth the danger there would be of having incompetent men in these offices.

Therapeutic Hints.

FOR CORYZA:

℞—Ac. carbol.,
 Aq. ammoniæ aa 3 jss
 Alcohol 3 iij
 Aquæ 3 iv

M. Sig.—Ten drops let fall on blotting paper and inhale through the nose.

℞—Cocaini gr. v
 Menthol gr. iv
 Salol 3 jss
 Ac. boric 3 iij

M. Sig.—Use as a snuff.

Or,

℞—Cocaini gr. v
 Menthol gr. ij
 Bismuth salicyl.,
 Sacch. lac aa 3 j

M. Sig.—Use as snuff.—Lermoyez in *Practitioner*.

HERPES PERPUTIALIS:

℞—Bismuth Subnit.
 Aristol aa 3 i

M. Sig.—Dust the parts after bathing and drying. Insert between folds of prepuce a thin flake of absorbent cotton.

FOR TOOTHACHE:

℞—Chloral Hydrate

Camphor aa 3 i

Mix and add

Chloroform 3 ss

Sig.—The cavity of the tooth should be dried, a small piece of cotton saturated with the solution and packed into the cavity.

Abstracts.

COLONO-ENTERIC IRRIGATION IN THE TREATMENT OF INTES-TINAL OBSTRUCTION—Dr. Edwin Pynchen (*Chicago Med. Recorder*) reports a case of intestinal obstruction successfully treated by continued irrigation. The patient, a girl aged 14, had not had an alvine evacuation for three days and had been eating chiefly cheese, crackers, oranges and grapes. She had been swallowing the seed of the grapes and also chewing gum. In acute intestinal obstruction it is apparent that the occlusion occurs through the exertion of power directed downward and outward, due to the peristaltic writhing of the intestines and nature's effort toward the expulsion of some portion of the intestinal contents. The author believed a complete reversal of such action would give the greatest promise of the undoing of the occlusion, hence to secure such result the first step would be to invert the patient, and the second to force some fluid through from the rectum to the stomach.

The next indication is to apply a greater force from below, and this may be secured by thoroughly distending the intestines below the constricted point, coupled with forcible bi-manual manipulations of the abdomen. To retard, or stop, the natural peristalsis, the pressure must be constant instead of intermitting so as to temporarily paralyze the natural muscular action and in order that these steps may be taken without the resistance of the patient an anesthetic must be given, which incidentally tends to further induce intestinal inactivity.

The patient was anaesthetized and suspended head downward over a chair which had been inverted, the back of the chair resting upon the floor and the seat being supported by a stool. A fountain syringe, for the continuous pressure afforded, was filled with water at a temperature of 110° F. and raised to the ceiling. He recommends a fall, when necessary, of as much as thirty feet for an adult and fifteen for a child. He recommends this great pressure on the strength of the experiments of W. E. Forrest, who found that the intestines of an adult would stand a pressure of fifteen pounds to the square inch, while in the case of a small child the maximum was about nine pounds, the pressure obtained from a column of water being one pound to each two and a half feet. In the author's case the force of the water was augmented by forcible abdominal massage and two and a half gallons were forced into the intestine. When this amount had been reached there was a violent gushing of water from the patient's mouth, about a gallon escaping in this way. The procedure was then stopped and when the patient was sufficiently recovered from the anaesthetic to be placed on a slop jar, another gallon escaped per rectum. The child recovered without further trouble and had a normal stool on the second day.

The conclusions to be deduced from a study of the case here reported, and a digest of the literature pertaining to conditions of acute bowel obstruction are:

That copious enemata promptly and persistently employed are indicated in early stages of acute intestinal obstruction.

That the patient must be anesthetized and suspended in a position of inversion.

That the water should be as hot as can be safely used, and there should be available no less than three gallons.

That a rectal tip must be used which will positively control the escape of water from the rectum, and that no long colonic tube is required.

That no air must be allowed to enter the gut and the water pressure must be constant and not intermitting; meaning by that a disapproval of the earlier method of alternately filling the gut so far as possible and then allowing it to empty itself.

That while the pressure must not be allowed to weaken, the onward flow of water can be made to alternate with forcible ab-

dominal massage, and

That the fall of water may be varied from fifteen to thirty feet, according to the age of the patient, and the stage of the trouble, providing a lesser fall, of say six feet, in alternation with massage is not successful.

THE SURGICAL TREATMENT OF FOCAL EPILEPSY.—(*American Journal of the Medical Sciences.*) By B. Sachs, M. D., and A. G. Gerster, M. D.

The authors report the results of their observations of nineteen cases of partial epilepsy. They include not only the cases of traumatic origin, but also those in which localized convulsions were associated with other diseases, especially with early infantile cerebral palsies. In only a single case could death be attributed directly to the operation. We are informed that the return of the attacks during the first days following an operation by no means proves that the surgical procedure had been a failure. The paralysis produced by the excision of a diseased portion of the motor area was found to be merely transitory, probably because this area had ceded its functions to neighboring, healthy portions of the cortex.

They draw the following conclusions:

1. Surgical interference is advisable in those cases of partial epilepsy in which not more than one or, at the utmost, two years have elapsed since the traumatic injury or the beginning of the disease which has given rise to the convulsive seizures.
2. In cases of depression or other injury of the skull surgical interference is warranted even though a number of years have elapsed; but the prospect of recovery is brighter the shorter the period of time since the injury.
3. Simple trephining may prove sufficient in a number of cases, and particularly in those in which there is an injury to the skull or in which a cystic condition is the main cause of the epilepsy.
4. Excision of cortical tissue is advisable if the epilepsy has lasted but a short time, and if the symptoms point to a strictly circumscribed focus of disease.
5. Since such cortical lesions are often of a microscopical character excision should be practised even if the tissue appears to be perfectly normal at the time of operation; but the greatest caution

should be exercised in order to make sure that the proper area is removed.

6. Surgical interference for the cure of epilepsy associated with infantile cerebral palsies may be attempted, particularly if too long an interval has not elapsed since the beginning of the plays.

7. In cases of epilepsy of long standing, in which there is in all probability a widespread degeneration of the association-fibres every surgical procedure is useless. *Int. Med. Mag.*

PUERPERAL ECLAMPSIA; ITS ETIOLOGY AND TREATMENT.—Dr. William Warren Potter of Buffalo, read a paper on this subject at the 91st. annual meeting of the Medical Society of the State of New York, Albany, Jan. 26, 1897. He said, *inter alia*, that we seem to have arrived at the renaissance of eclamptic literature, that while the subject is being discussed in magazine articles and societies it would not answer for this society to keep silent.

Though the pathogenesis of eclampsia is still unsettled we are certain that it is a condition *sui generis*, pertaining to the puerperal state, and that to describe, as formerly, three varieties—hysterical, epileptic, apoplectic—is erroneous as to pathology and causation as well as misleading in treatment.

The kidney plays an important office in the economy of the eclamptic. If it fails to eliminate toxins, symptoms are promptly presented in the pregnant woman. Renal insufficiency is a usual accompaniment of the eclamptic state. Overproduction of toxins, and under elimination by the kidney is a short route to an eclamptic seizure. However, many women with albuminuria escape eclampsia and many eclamptics fail to exhibit albuminous urine.

The microbic theory of eclampsia has not yet been demonstrated. The toxemic theory in the present state of our knowledge furnishes the best working hypothesis for prevention of a cure.

Treatment should be classified into (a) preventive, and (b) curative. The preventive treatment should be subdivided into medicinal and hygienic; and the curative into medicinal and obstetric. A qualitative and quantitative analysis of the urine must be made at the onset. If there is defective elimination something must be done speedily to correct a faulty relationship

between nutrition and excretion. One of the surest ways to control progressive toxemia is to place the woman upon an exclusive milk diet. This will also serve to flush the kidneys and thus favor elimination. Distilled water is one of the best diuretics; it increases activity and supplies material—two important elements. In the pre-eclamptic state, when there is a full pulse with tendency to cyanosis, one good full bleeding may be permissible, but its repetition should be regarded with suspicion. If there is high arterial tension—vasomotor spasm—glonoin in full doses is valuable.

When eclampsia is fully established the first indication is to control the convulsions. Full chloroform anesthesia may serve a good purpose. If the convulsions are not promptly controlled the uterus must be speedily emptied. This constitutes the most important method of dealing with eclampsia. Two lives are at stake, and by addressing ourselves assiduously to speedy delivery of the fetus we contribute in the largest manner to the conservation of both.

Rapid dilatation first with steel dilators, if need be, then with manual stretching of the os and cervix, followed by the forceps, is the nearest approach to idealism. Only rarely can the deep incision of Dührssen be required. Cesarean section should be reserved for extreme complications, as deformed pelvis, or to preserve the fetus when the mother's condition is hopeless. *Veratrum viride* is dangerous uncertain and deceptive in action.

In eclampsia of pregnancy, i. e., prior to term, the aseptic bougie, introduced to the fundus and coiled within the vagina, may be employed to induce labor. Finally, to promote the elimination of toxic material diuresis, catharsis, and diaphoresis should not be forgotten; neither should the hot air bath, nor the hot pack be overlooked.

MEDICAL SUPERSTITION.—In lieu of the large number of new remedies which have made their appearance during the last year, the following therapeutic hints taken from the *New York Press* have at least the merit of being very old and well known in former times, and in many cases were probably quite as efficacious as some of the more modern "cures." They are popular remedies in common use among the German peasantry.

The cures for epilepsy are especially varied, and are described as follows: To keep away epileptic fits, wear a thick silver ring on the finger, preferably one made from a coffin nail. In case of a "fit," open the clothing and scratch a cross on the breast with a needle, so that the blood comes, and lay a black cloth over the mouth. When one feels an attack of epilepsy coming on, he should look in a mirror, or smell of a bug of some sort.

Milk from a sow, blood from a weasel, a pregnant ass, seven drops of blood from the tail of a cat, or blood from a recently executed criminal, are all remedies for epilepsy.

For jaundice, drink water in which a gold piece has been kept 24 hours, and shave the nose with a razor until the blood comes.

For malaria, chew the first violets of the season, eat apples Easter time, keep a three colored cat in the house. Pass the fever over to some one else, if possible to an animal or plant, or bury it in the ground.

For ulcers, carry a nutmeg in the pocket.

For boils wear a gold piece, or a half of a hard-boiled egg over the lesion.

To cure a felon, or "run-around," hold the finger in a cat's ear for half an hour.

Cancer may be cured by applying warm hen's pigeon's or calf's flesh.

For toothache, trim your finger-nails on Friday, eat bread a mouse has nibbled, or bury a tooth in the hole of a mouse, or carry in the pocket a tooth from a soldier killed in battle, or from a murdered man. Kiss a mule. Rub the gums with the body of an ant, bee or fly, or prick them with a sharp twig from a sweet apple-tree.

For ranula of the tongue, spit on a frog.

To cure a goitre, rub in oil from a lamp, especially from a lamp that has burned by a death-bed.

For gout, wear a copper ring, made from a coffin-nail, or carry a snake-skin, potatoes, chestnut, or the tooth of a mole, or a dried toad.

For alcoholism, drown an eel in brand and make the drunkard drink it.

For impotence, drink a glass of mother's milk.

For stomach trouble, beer poured over a red-hot horse-shoe is helpful.

For hydrophobia, inscribe upon a loaf of bread, on the upper crust, the following words, and give it to man or beast, as the case may require:

“Cerum heirum Lada frium hide thyself.”

To cure warts, rub the wart with a potato and feed the potato to a pig.

If a child is puny and of low vitality, bore a hole in a young tree, at exactly the height of the child. Drive a plug into this hole, along with some hairs of the child's head. This belief is that as the tree continues to grow, so will the child.

Freckles may be removed by washing in water contained in a hollow stump, three successive mornings before sunrise.—*Amer. Medico-Surgical Bulletin*.

NUCLEIN.—A. L. A. Toboldt reports in the *New York Medical Journal* his experience in the use of nuclein solution prepared after the formula of Dr. Aulde. He refrains from comment, merely giving his clinical histories, of which we present a very condensed abstract.

The first case, a man 34 years of age, had met with a fracture of the clavicle and several ribs due to a direct blow. There was an enormous subcutaneous hemorrhage, which at the end of five days remained almost stationary. At the end of another ten days the skin was becoming thinner and more discolored. He was given one-third of a minim of nuclein solution, after which the tumor began to diminish and at the end of thirty-six hours had wholly disappeared.

A boy aged five years, whose head and face were covered with boils, was given a one-third-minim dose, and at the end of a few days the face was almost clean, the last boil disappearing some ten days after beginning treatment.

A young woman, aged 30 years, complained of great debility, with cough and profuse expectoration, hectic fever in the afternoon followed by cold sweats. Resonance was impaired over the right apex, and there was marked dropsical swelling of the feet reaching almost to the knees. One-third-minim doses of nuclein solution, repeated every hour, so far altered the condition of this patient that she was able to return to her work in a factory after two weeks, the dropsical swelling, cough and expectoration having ceased.

A married woman, aged 30, the mother of three children, suffered from enlargement of the abdomen and dropsical effusion, which was attributed to tubercular peritonitis. Under nuclein solution given hypodermically in three-minim doses each day, the swelling of the abdomen diminished very rapidly and at the end of two weeks had disappeared.

A woman 35 years of age, with tuberculosis of the apices of both lungs, had repeated hemorrhage with profuse expectoration, hectic and cold sweats: was placed upon nuclein solution, three minims hypodermically each day, with a result that on the fourth day the fever and sweats entirely ceased, the expectoration became less profuse and in two months she gained ten pounds in weight. A later examination of this patient showed that the lungs had cleared very much and cough had practically ceased.

Two other very similar cases are reported, in which there was prompt relief of all the graver symptoms, but it is not claimed that the lungs were fully restored.

A case which the writer regards as a typical typhoid fever pursued a very mild course under nuclein, one-third of a minim each hour, with copper arsenite, $\frac{1}{100}$ grain, each two hours.

To a case of scarlet fever in a child five years old was given, as soon as the eruption appeared, one-third of a minim of nuclein solution each hour. The disease seemed to pursue a very favorable course, and on the third day of the nuclein administration the temperature was only 101° and the throat symptoms had disappeared.

A man, aged 45, first came under observation three years ago, presenting marked symptoms of diabetes. Under the usual treatment he improved, but at the end of a year returned with all his symptoms aggravated. These were lessened by appropriate diet, but at the end of the third year he returned with symptoms worse than ever. He was then placed upon one-third of a minim of nuclein solution each hour, and at the end of two weeks the sugar had fallen from 3 to 1 per cent., at the end of a month it had entirely disappeared. At the end of another month, there appearing a trace of sugar in the urine, he was given the nuclein and $\frac{1}{100}$ grain of copper arsenite. The sugar entirely disappeared, and had not returned at the end of six months.—*Medicine-*

THE OPERATIVE TREATMENT OF FRACTURES.—The author, Emil Markers (*Beit. z. klin. Chir.*) reports the results in 14 new cases of complicated fractures and 10 cases of pseudarthrosis or dislocated fractures, treated by the introduction of ivory pegs into the medullary canal of the fragments.

Of the new cases so treated, all but one yielded a good result; one died from delirium tremens. In three cases wire sutures had to be used in addition. Of the older cases, 8 were entirely cured, 2 were unimproved.

This method was used because it permits perfect coaptation of the fragments and their retention in perfect position. The operation itself is not dangerous; technical difficulties are relatively slight. If suppuration and a fistula occur, the foreign body is removed after consolidation has taken place.

The advantages of this method over suturing the bone fragments are as follows:

(1) The ivory peg permits more exact coaptation and retention; sutures for long bones are insufficient; the wire gets loose in many cases.

(2) The operation of suturing is not simpler, nor the technique more easily carried out.

(3) The conditions for the healing-in of the wire are less favorable than those for ivory. Frequently, on removing the wire large sequestra are found. This was never seen in the reported cases.—*American Medico Surgical Bulletin.*

HYPERTROPHY OF THE PROSTATE.—Dr. McEwan read a paper on this subject at the last meeting of the Brit. Med. Asso. and summed up his conclusions as follows:

"1. In many cases castration causes more or less atrophy of the prostate. 2. Atrophy occurs most commonly when the prostate is soft. 3. It is of most value when the enlargement is general. 4. Cystitis may be relieved or cured. 5. In marked cystitis, drainage is better. 6. It may do away with the necessity for the use of the catheter. 7. Or the catheter may be required less frequently. 8. Resection of the vas deferens acts more slowly, but the effect is similar.—*Brit. Med. Jour.*—*Amer. Medico-Surgical Bulletin.*

OFFICIAL LIST OF CHANGES IN THE PUBLIC SERVICE.

Bailhache, P. H., surgeon, when relieved from duty at New York, N. Y., on or about March 1, 1897, to proceed to Washington, D. C., for duty. January 27, 1897.

Purviance, George, surgeon, to be relieved from "waiting orders" Feb. 20, 1897; then to proceed to Baltimore, Md., and assume command of service. January 27, 1897.

Hutton, W. H. H. Hutton, surgeon, granted leave of absence for five days from January 22, 1897. To proceed from Detroit, Mich., to San Francisco, Cal., in time to arrive there February 25, 1897, and assume command of service. February 5, 1897.

Stoner, G. W., surgeon, when relieved from duty at Baltimore, Md., on or about Feb. 25, 1897, to proceed to New York, N. Y., and assume command of service. January 27, 1897.

Godfrey, John, surgeon, when relieved from duty at San Francisco, Cal., on or about Feb. 25, 1897, to proceed to Detroit, Mich., and assume command of service. January 27, 1897.

Irwin, Fairfax, surgeon, when relived from duty at Washington, D. C., about March 5, 1897, to proceed to Philadelphia, Pa., and assnme command of service. February 5, 1897.

Carter, H. R., surgeon, granted leave of absence for seven days. January 19, 1897.

Carmichael, D. A., surgeon, when relieved from duty at Vineyard Haven Mass., on or about March 1, 1897, to proceed to Cleveland, O., and assume command of service. February 5, 1897.

Clennan, A. H., passed assistant surgeon, to be relieved from duty at Reedy Island Quarantine Station April 5, 1897; then to proceed to St. Louis, Mo., and assume command of service January 27, 1897.

Woodward, R. M., passed assistant surgeon, when relieved from duty at Cleveland, Ohio, on or about March 10, 1897, to proceed to Reedy Island Quarantine Station for duty, and to assume command of that station April 5, 1897. January 27, 1897.

Vaughan, G. T., passed assistant surgeon, to proceed from Philadelphia, Pa., to Washington, D. C., for duty. February 5, 1897.

Brown, B. W., passed assistant surgeon, to proceed from Washington, D. C., to Charleston, S. C., in time to arrive there January 28, 1897, for temporary duty. January 19, 1897.

Stewart, W. J. S., passed assistant surgeon, to proceee from Washington D. C., to Vineyard Haven Mass., about March 1, 1897, and assume command of service. Febuary 5, 1897.

Prochazka, Emil, assistant surgeon, order of January 5, 1897 directing him to report for examination revoked. January 20, 1897.

Cnmming, H. S., assistant surgeon, when relieved from temporary dnty at Southport Quarantine on or about January 30, 1897. to proceed to new York, N. Y., for duty. January 19, 1897.

Miscellaneous Items.

Dr. Needham Bryan Herring, of Wilson, N. C., was married on December 31, 1896, to Miss Alice Harvey, of Greene county.

Five years ago the diphtheria mortality in Boston was from 30 to 32 per cent. For 1896 it was only 11.14 per cent. Anti-toxin seems to have the power of rendering epidemics "mild."

THE POLYCLINIC HOSPITAL.—The trustees of the New York Polyclinic Medical School and Hospital have decided to rebuild on the site of their former building, which was burned some weeks ago. The work will be begun immediately.

Dr. Wende, the health officer of Buffalo, N. Y., has secured the enactment of an ordinance prohibiting the *use or sale* of any nursing bottle having a rubber tube. This is a seemingly trivial matter but will result in the saving of many lives each year.

Two physicians of Dixon, Ill., induced a young woman to allow them to perform an operation for appendicitis. A year later, Dr. Senn performed an operation on the woman, and he found that the previous operation was a fraud, as the physicians only cut through the outer skin and then sewed up the wound. The physicians were arrested.—*Amer. Medico-Surg. Bulletin.*

A CLINICAL MULTUM IN PARVO.—In its Cincinnati news the *Jour. Amer. Med. Asso.*, makes the following statement:

"A man appeared at the City Hospital last week with the following conditions: A silver plate 4 x 6 inches in the occipital bone, phlegmasia alba dolens, knee cap dislocated to posterior surface of leg, five ribs resected, his heart on the right side and a bullet in his pectoral muscle. These were all chronic conditions of several years standing.

There has recently been presented to Johns Hopkins Hospital by Mr. William Wallace Spence, of Baltimore, a reproduction of Thorwaldsen's statue of "Christ, the Divine Healer." The statue is placed in the center of the reception hall, beneath the dome, and facing the entrance, so that "to every weary sufferer entering these doors, the first object presented to him is this benign, gracious figure, looking down upon him with pitying eyes and outstretched arms, and as it were saying to him 'come unto Me and I will give you Rest.'" The statue is the work of Professor Stein, the Director of the Royal Academy of Art, in Copenhagen. It is beautifully illustrated in the Hospital Bulletin, for January.

A CRAZE FOR QUACKERY IN PARIS.—The following is taken from London dispatches to the *Sun*.

"Quackery has come to be more profitable than the legitimate practice of medicine with a large class in Paris. The other day a gentleman whose rooms are crowded from morning till night with patients was threatened with prosecution for exercising the profession without a diploma. Being thus brought to bay, he confidentially displayed to the officials the necessary document. He, however, implored the authorities to keep the diploma secret, explaining that if his clients had an inkling that he was a veritable physician his gains would diminish. M. Paul de Cassagnac makes even a more remarkable disclosure, and vouches for its authenticity. He asserts that there is a house in Paris in which patients are received for the purpose of undergoing sham operations. They have been induced to believe that they are suffering from some organic complaint which can only be cured with the knife, and they betake themselves to this establishment, which has been particularly recommended to them. On the day appointed for the so-called operation they are put under chloroform, and a few make-believe cuts and scratches are inflicted. In certain medical circles there is a regular name for men who practice these tricks on the victims of imaginary ailment."—*Amer. Practitioner and News*.

Not long ago someone advocated the desirability of medical men wearing some sort of distinguishing uniform, so that like

soldiers they could be known at sight, and when in emergencies their services were required they could be pressed into duty. Now Dr. Stone, of the Indiana National Guard, has devised a simpler way of distinguishing doctors from other mortals. He would have them wear a gold button on the lapel of their coats, bearing a red cross and the mystic letters "M.S.O.H.," which, he says, stands for medicine, surgery, obstetrics and hygiene. —*Amer. Medico-Surg. Bulletin.*

[In these days it is hardly necessary to have doctors labelled. If there is need for them they are generally in evidence and do not fail to let their presence be known.]

PREPARATION FOR THE PLAGUE.—Dr. H. C. Boenning, quarantine physician at the port of Philadelphia and executive officer of the Pennsylvania State quarantine board, has given orders that the quarantine measures enforced at the port of Philadelphia during the prevalence of cholera in Europe a few years ago and its threatened introduction into this country will be now enforced against any vessel that may arrive at the quarantine station from the plague district, and no vessel will be allowed to come to the port of Philadelphia that can be in any way a menace to the health of the community. Rags coming from infected districts will be strictly prohibited from entering the port, as will also all articles that have been in household use, rugs, etc., which might possibly be carriers of infection. The secretary of the Pennsylvania State board of health, Dr. Benjamin Lee, will issue a circular indicating the necessity of unusual activity on the part of municipal authorities throughout the State for placing their respective towns and boroughs in a state of extreme cleanliness. The board of health will also urge the importance of attention to personal hygiene and cleanliness, especially on the part of those who may be exposed to the contagion. A communication will be addressed to the managers of the leading passenger railroads throughout the State, indicating the possible necessity for the establishment of hospitals and quarantine stations at the State line. Special instructions will also be issued to the inspectors at the ports of Erie and Pittsburg, as to the necessity for keeping a close watch upon any vessels arriving from foreign or domestic ports at

which infection exists. The importance of the disinfection of mail matter coming from infected districts will be urged upon the postal department.—*Med. Record.*

Reading Notices.

THE DIET IN CHRONIC DIARRHŒA OF INFANTS.—If the child be under one year of age the diet must not go beyond the range allowed at that period of life.

Barley water and whey, perhaps milk according to circumstances and Mellin's Food, raw meat juice, white of egg or yellow of egg with water, mutton broth, weak beef tea, is a sufficient list of foods. It is generally asserted that animal broths are deleterious in diarrhœa; used in small quantities cold I have not noticed any prejudicial effect, and certainly the number of stools has not appeared to be increased. From "Treatment of Diseases in Children." Angel Money, M.D.

CONSTIPATION NOT HARMFUL.—An editorial in a recent number of *Practical Medicine* discusses the subject as follows:

"One of the most remarkable articles which we have read in some time recently appeared in one of our exchanges. We would think but little of such an article did it not come from one of the faculty of the Post-Graduate College. The writer declares that constipation, even for a long period, brings no bad results whatever. He says that it is 'an experience which physicians make every day' that patients are 'kept in bed for weeks without any movement of the bowels and yet there are no bad effects.'"

In treating a case of chronic constipation, the author says: "It is best to tell the patient not to take any drugs and not to get alarmed if he has no movement for about a week." While such advice may be in strict accord with some new discovery in the bacteriological laboratory, yet it is precisely contrary to the experience of almost every physician who has had anything to do with practical observations at the bedside. Instead of modern methods teaching us something new in this line, we believe that they rather confirm the teaching of the old Scotch proverb, that you will be all right if you trust in God and keep the bowels open.

Just in this connection might properly be added the best relief and the best cure for this condition. We refer to Syrup of Figs as prepared by the California Fig Syrup Co. Excellent, economical, effectual.

BUFFALO LITHIA WATER

Disintegrates and breaks down Urinary Calculi, both the Uric Acid and Phosphatic Formation, and other Varieties as well.

ANALYSES AND REPORT BY DR. R. OGDEN DOREMUS

Professor of Chemistry in the Bellevue Hospital Medical College, New York.

NEW YORK, December 3, 1896.

*Dr. E. C. LAIRD, Resident Physician,
Buffalo Lithia Springs, Va.*

Dear Doctor :—

I have received the five collections of **Disintegrated Calculi**, each collection containing a number of fragments, and also the three boxes, each containing a single Calculus, mentioned in your letter as discharged by different patients while under treatment by the **BUFFALO LITHIA WATER, Spring No. 2.**

I have analyzed and photographed parts of each specimen, and designated them alphabetically.

One of Calculi from collection marked "A" was $\frac{1}{16}$ of an inch in diameter, of an orange color, and on section exhibited a nucleus surrounded by nine concentric layers of a crystalline structure. On chemical analysis it was found to consist of **Uric Acid** (colored by organic substances from the urine), with traces of **Ammonium Urate** and **Calcium Oxalate**. A fragment of a broken down Calculus from the same collection was found to consist of **Uric Acid**.

One of the fragments taken at random from the collection marked "B" which was still more disintegrated than the preceding one, proved on analysis to be composed chiefly of **Urid Acid** and **Ammonium Urate**, with a trace of **Calcium Oxalate**.

The contents of the boxes marked "C" consisted chiefly of whitish Crystalline materials. On microscopic examination they exhibited well defined and prismatic crystals, characteristic of "Triple Phosphate." On chemical analysis they were found to consist of **Magnesium** and **Ammonium Phosphate** (triple phosphate), **Calcium Phosphate**, **Calcium Carbonate** a trace, **Sodium** and **Potassium Salts** in traces, **Uric Acid** and **Urates** none, **Calcium Oxalate** none, **Organic debris** in considerable quantity, and matters foreign to Calculi.

The fragments of Calculi in the collection marked "D" were numerous, and of sizes varying from small fragments to $\frac{3}{8}$ inches in length, $\frac{1}{16}$ inches in width and $\frac{1}{16}$ inches in thickness. Some of the fragments were white and others were gray in color. On chemical analysis they were found to consist partly of the variety known as "Fusible Calculus," **Ammonium** and **Magnesium Phosphate** with **Calcium Phosphate** also, **Calcium Phosphate**, **Calcium Carbonate** in traces, **Calcium Oxalate** in traces, **Uric Acid** in traces and **Organic matter**.

The Calculus in collection marked "E" were nodulated and nearly spherical in shape, consisting of Crystalline layers from $\frac{3}{8}$ to $\frac{1}{4}$ of an inch in diameter. They were of a brown color, and on analysis were found to be chiefly **Uric Acid**, with some **Ammonium Urate** and traces of **Organic matter**.

Yours respectfully,

R. OGDEN DOREMUS.

Analyses F, G and H, omitted for lack of space.

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NORTH CAROLINA MEDICAL JOURNAL.

PUBLISHED SEMI-MONTHLY AT \$2.00 PER ANNUM.

Robert D. Jewett, M.D., Editor.

[Entered at the Post-Office at Wilmington, N. C., as Second-class mail matter.]

A NEW DIGESTIVE FERMENT

Useful in all ailments arising from
faulty digestion of starch.

The profession have tried, says the THERAPEUTIC GAZETTE, to aid the digestion of starch for many years by the use of various preparations of malt, which have been largely given with little direct good as a result, for the diastatic properties of most of these preparations are so slight as to render them practically of no value as digestants, whatever may be their usefulness when acting as nutritives. Within the past few months a Japanese investigator has obtained such a valuable diastatic product that his researches deserve careful study and his results thorough trial. If, as he has apparently proved, we possess in Taka-Diastase a starch-digestant equal to or exceeding in power pepsin or pancreatin for proteids, we have made an extraordinary gain in therapeutics, for we are now able to relieve a large number of persons suffering from faulty digestion of starch, and can aid our patients during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods.

Taka-Diastase has now been under trial at the hands of the profession for nearly eighteen months, and it seems to have been proven conclusively that it is the remedy in amylaceous dyspepsia. Immediate improvement in digestion follows its administration. From 1 to 5 grains should be taken with the food or immediately thereafter; if in capsule form, at the beginning of the meal.

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UPON APPLICATION.

LAMBERT PHARMACAL CO., St. Louis.

NORTH CAROLINA MEDICAL JOURNAL.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND
SURGERY.

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Original Communications.

DIASTASE IN THERAPEUTICS.*

By C. C. FITE, M.D., New York.

THE sprouting of a seed was considered, until quite recent times, a great mystery; not until diastase was discovered could we properly understand why a seed after being placed in a moist soil began to develop into a plant after having lain dormant perhaps for years. Under proper conditions, the life endowed germ is no longer a sleeping unknown quantity, but it is an active principle and the process of development begins.

The sprouting of seed is a very interesting subject for scientific study—this awakening of the germ life, by the influence of heat and moisture, and the action of diastase in converting the starch of the seed into maltose, which afterwards becomes fibrous or cellular tissue. We will not go into a discussion here in reference to the secretion by the plant of fluids which, acting through the delicate roots, absorb and utilize the soil elements; of the important work done by the leaves in taking carbon from the atmosphere; and by these and other processes completing the growth of the plant and eventually a reproduction of seed to continue the life of the species indefinitely.

Let us now leave the plant and refer to the important factor in the growth and development of animal life; the ptyalin of

*Read before the New York Medico-Surgical Society, January 4, 1897.

the saliva, a product analagous in many respects to diastase. Just as Nature places diastase in the grain to produce the changes leading up to a higher growth, so she gives animals ptyalin to convert the starch and perhaps other foods into assimilable material for nourishment, for heat, and a reserve supply of fat. I use the words nourishment, heat, and fat, advisedly. The starch so converted is nourishment, and it is the basis of our coloric energy. Our supply of fat comes mainly from the starch changed into maltose by the ptyalin, supplemented by the pancreatic secretions, and it is changed into oil later on in the process. This oil is not only utilized for heat but stored in the tissues as a reserve supply.

It is well to bear in mind that few carnivorous animals take on a great degree of fat; grain eating animals do. Give swine all of the fat and oils they can eat, and they will not gain in weight half as quickly as when fed on grain alone.

The function of ptyalin is to convert starch into dextrin and maltose, this being the preliminary step, and goes on in the normal stomach for from thirty to forty minutes, after the close of an ordinary meal, when the acid peptic digestion stops the diastasic process. The duodenum holding the pancreatic and other secretions takes up the partially changed starch and completes the conversion. We need not follow the process beyond this point.

It has long been observed that we do not get altogether satisfactory results in the treatment of amylaceous indigestion with pancreatic extracts. This is probably due to the fact that the amylopsin of the pancreatic juice and the other various duodenal enzymes are intended more for completing and finishing the changes already begun by ptyalin before the peptic digestion supervenes, and are not adapted for this preliminary conversion in the stomach. In other words, they are not suitable for beginning the conversion in the food mass as found in the stomach—acting we might say on the mass later when it is an acid body, during the time it is being changed from an acid to an alkaline reaction, instead of on the alkaline or neutral mass when it is being changed into an acid mass. We see, therefore, that while ptyalin and amylopsin are practically identical in their action on starches, Nature intends them to act

under different conditions and at different periods of the digestive process. Therefore, we should not give pancreatic extracts with the expectation that they would render desirable service in the stomach, but we should rely upon either increasing the supply of ptyalin by slowly masticating the food, or by giving a ferment having similar properties to ptyalin; this we have in diastase.

From the discovery of diastase in malt, until quite recently, many attempts have been made to produce it in an isolated form economically enough to be used freely in medicine; without having to give it in the form of the semi-solid malt extracts which have been the only reliable form of it readily obtainable by the profession, as the liquid malt extracts do not contain an appreciable amount of diastase.* The disadvantage in its use in malt extracts is that we have to give a large bulk of the extract to get a very small quantity of diastase; then too, the extract contains fermentable sugars and extractive matters which may not only be of no value, but may give rise to fermentation in the stomach or intestinal tract.

So far the only chemist, who has succeeded in producing an isolated diastase economically and on a large scale, is Jokichi Takamine, the Japanese chemist. (See the *London Lancet*, May 25, 1896.) This investigator received his scientific education at the Glasgow University. He devoted some years to the study of malting and the production of diastase and other ferments, and upon his return to Tokio was fortunate enough to find that *Eurotium oryzae* was what he desired. The process he finally perfected is in brief as follows: The seed of the *Eurotium* is sown on moistened and sterilized wheat bran. The growth is rapid, and after the plant has reached maturity, he calls the bran with the growth on it "Taka-Koji." Upon examining this growth, under the microscope, it is found that the roots of the *Eurotium* which have penetrated the bran, are covered with crystals of pure diastase. These diastase crystals have the property of converting the starch of the bran for the nourishment of the plant. Takamine named the diastase so produced, Taka-diastase. In preparing this diastase for use in medicine it is necessary to get rid of the spore. This is done by percolating

*See The Boston Medical and Surgical Journal for Dec. 31st, 1896, page 669.

the Taka-Koji with water, and adding to this solution of diastase alcohol, when the diastase is precipitated and the activity of the spores destroyed. It is then a simple matter to further purify the diastase and preserve it in a dry powdered form indefinitely.

This diastase, owing I presume to it being an isolated substance, acts much quicker than the diastase found in malt extracts. It will convert 100 times its weight of starch in ten minutes under proper conditions, if the process is continued for three hours, 1,500 times its weight. It is therefore evident that its amylolytic-converting power is quite marked, and the theoretical position that it would prove of value in the treatment of amylaceous indigestion has been verified by careful observers many times over.

Professor Leo, of Bonn, claims that this diastase exerts its action in a higher degree of acidity than was first claimed by those of us who had experimented with it, and that it is, therefore, superior to ptyalin in its starch-converting power. He has employed it with benefit in cases of deficient salivary secretion, as also in hyperacidity of the stomach.

Dr. W. S. Christopher, of Chicago, (*Therapeutic Gazette*, March, 1896), holds that flatulence is due to micro-organisms which attack unchanged starch and give rise to fermentation, and that it is therefore important in these cases to predigest the starch in the stomach, and the more complete this process, the less food there is for the micro-organisms to act upon in the duodenum. He finds that the administration of diastase in these cases gives satisfactory results.

Dr. R. W. Wilcox, of this city, has given very close attention to the therapeutics of this question; as shown by two papers he read some months ago. One before the New York State Medical Society, January, 1896, and one before the New York Academy of Medicine, February 18, 1896. Both papers being published in the *Medical News*.

Other favorable clinical reports which have attracted my attention which may be mentioned here are—in the *Journal of the American Medical Association* for August 15, 1866, by Dr. T. H. Allen; in the *Medical Age* for July 25, 1896, by Dr. F. Spencer Halsey; and in the *Therapeutic Gazette* for September 15, 1896, by Dr. Wm. A. Walker.

In the practice of some friends, who have reported the matter to me for elucidation, this form of diastase seems to have other properties than its action on starch. In one notable case in which pepsin and other methods of treatment failed to give any benefit, although every symptom and test seemed to indicate that it was an undoubted case of albuminous indigestion, the result was not only palliative but curative. I have endeavored to have this matter settled by laboratory experiments, but so far the results have not been entirely conclusive, so any theory on this question for the present must be based mainly upon clinical evidence. This diastase does, as was shown by the experiments referred to, *disintegrate* albumens, but the proteolytic action *apparently* stops short of the production of albumoses and peptones. As to what takes place in the intestinal tract, of course we cannot yet say. It is altogether probable that the benefit in these cases is due to the promptness with which the first period of digestion is carried on and the conversion, instead of the fermentation of the starchy foods, leaving the second process, the acid peptic digestion, to go on normally without being interfered with by deleterious products, and the partial disintegration above referred to doubtless promotes the activity of the gastric juice by giving it freer access to the particles of albumen.*

We should always bear in mind that we have from thirty to forty minutes after the close of an ordinary meal in which the action of ptyalin or diastase will continue before the acidity of the stomach contents reaches the point at which such converting power is impaired or destroyed. The proper theory for the administration of diastase is that it supplements the ptyalin of the saliva, and the more thorough the preliminary digestion in the stomach, the less work there is to be done in the duodenum. The formerly prevalent theory that pancreatic extracts and diastase ought in some mysterious way to find their way through the stomach into the duodenum, and there begin their work, is too absurd to be entertained. (See Dr. Walker's article above referred to). I am indebted to Dr. Henry Dwight Chapin for information in this connection (*N. Y. Medical Journal*, September 16, 1893), the results of some elaborate experiments which he had made in the Post-Graduate Laboratory in 1893.

The experiments were made with a product containing diastase; the stomach was washed out and after the subject had been properly fed the diastase was administered in certain cases and omitted in other. The report made to Dr. Chapin by the chemist in charge of the work was, that, when the stomach was emptied forty minutes after the administration, the percentage of food remaining in the stomach at this time averaged, when diastase was not given, 52.02 per cent.; with diastase, 29.2 per cent. This showed very conclusively the action of the diastase in the stomach. An analysis of the solid food remaining in the stomach showed that when diastase had not been administered, 7.02 per cent. were undissolved; when it was given, only 3.45 per cent.

Experiments with diastase have not up to this time been as satisfactorily conducted as those made with pepsin, for the reason that diastase is a sensitive body, and the value of any laboratory or test-tube experiments are apt to be contradictory, unless proper precautions are preserved as to the degree of heat used, and the various brands of starch found in the market vary in reaction and in their sensible properties. It is to be hoped that we will soon have definite tables in use for this work, so that all experiments being made by a uniform standard, the results can be more intelligently compared and studied.

I might add in conclusion that the therapeutic properties of diastase have not yet been as thoroughly investigated as could be desired. A good deal of careful work is now being done by investigators in this and other countries, and I am confident that the literature of the subject will be enriched very greatly in the near future.

So far little has been done with diastase in practical medicine beyond its use in typical cases of amylaceous indigestion. What we may expect from its employment in partially converting the starch of barley water for infant feeding remains yet to be determined, but I am very hopeful of its use in such cases. The fact of the casein of cow's milk being so much more dense and liable to form tough curds than human milk, has led me to hope that if we partially convert the starch of the barley water it will become not only a mechanical diluent for milk, but a readily absorbable food as well, which will nourish and not

give rise to fermentation and flatulence.*

Some time since I witnessed several experiments in bread-making made by Mr. C. Von Egloffstein, then of Yonkers, now of Brooklyn, N. Y., to determine the value of diastase in rendering bread more soluble. His conclusions were that the soluble matter in ordinary bread in water at a temperature of 100° F. represented at the end of an hour 15% whereas when a proper amount of a product containing diastase was added to the bread before baking the soluble matter under the same conditions was 40%.

It is more than probable that diastase will play an important part in the therapeutics of the future.

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*Since this paper was written, I have been informed by Mr. F. A. Thompson, a skilful Detroit chemist who has given close attention to this subject and performed a number of elaborate experiments with diastase and other digestive ferments that he has found that Taka-diastase does undoubtedly, not only disintegrate albumens, but produces albumens and peptones as well. This is an important and interesting discovery, and perhaps confirms the work of the German chemist, Bexones, who found that producing diastase from malt a byproduct, which he named peptase, was formed, which acts on albumen. It is therefore evident that as there is formed in grain a product to change the albumen of the grain as well as the starch converting ferment, so the Eurotium has a ferment similar to peptase for converting vegetable albumen for its nourishment. The peptase produced in malting is extremely slow in its action, due perhaps to it being interfered with by the thick gummy malt products.

*See Dr. Chapin's remarks in the discussion following.

TUBERCULAR MENINGITIS.*

By J. ALLISON HODGES, M.D., Professor of Nervous and Mental Diseases, University College of Medicine, Richmond, Va.

FROM whatever standpoint viewed, tubercular meningitis is a most interesting disease.

The consideration of its bacillary origin, its peculiar mode of invasion, its stubborn resistance to all known therapeutic measures, its appalling record of mortality being the most directly fatal of any disease of early childhood; either or all are questions inviting the interest and enthusiasm of every student of disease.

It may almost be called an incurable disease; for, notwithstanding three cases of its happy termination are reported, it is not at all improbable that an incorrect diagnosis was a source of error even with those distinguished clinicians.

Discarding for the present other interesting and instructive features, I desire especially to direct attention to its *diagnosis*, for I consider this a paramount importance, in not so much that its fatal termination can be avoided, as it is at present treated, but that the ends of scientific exactness in this as in other diseases may be attained, and that future errors of prognosis may be avoided.

I am persuaded from personal practice, and from my experience as consultant, that many cases of this disease have been incorrectly interpreted by the attending physician, and the significance of many of its varied symptoms overlooked, until its unfortunate termination revealed the correct nature of the illness. A melancholy experience with two such cases is a lesson still indelibly impressed upon my mind, and it was this that first attracted my attention to my lamentable error in diagnosis; for deceived by the mild train of symptoms before coma supervened, I overlooked the danger that was impending, and gave an encouraging prognosis! When the symptoms, that shall now be detailed, are considered, is it possible that others may realize that they too may have to plead guilty to such a charge of mistaken diagnosis?

Tubercular meningitis presents a preponderance of nervous symptoms, and is a distinctively bacillary disease, being peculiar to childhood, and usually attacking children between two and ten years of age. The membranes involved are the same as those in simple meningitis, but the anatomical lesions differ, for the latter affects the pia and arachnoid on the convexity of the brain, while a meningitis of tubercular character attacks those membranes at the base.

The prodromal symptoms are vague, and for this reason are apt to be misleading. As much as any clinician, I abhor the division of any disease into arbitrary stages, being well aware how variable are the manifestations, but for the sake of clearness, I prefer to so divide the symptoms of this disease; for, as a rule, there is a regular sequence in them; and it is only from

a contemplation of this succession of symptoms, when associated with other manifestations, that the cause of the ominous changes which occur in the later periods is suspected and can be diagnosed.

I believe that too great importance cannot be attached to the mode of invasion of this disease as a diagnostic point. In simple meningitis there is a stormy onset, and a convulsion ushers in the scene, while in tubercular meningitis the convulsion is usually one of the last acts in the sad drama. In tubercular meningitis, this period of invasion is so peculiar that it cannot be mistaken by the careful observer, if the facts which are of such import in the determination of this particular disease are faithfully elicited.

Mode of Invasion. The initiatory symptoms are so indefinite as often to be deceptive. The child is not at once seized with a sudden illness. There is simply a *gradual failing of the general health*, and the only physical sign of disease is a more or less evident emaciation. This change in the condition of the child also is a variable one, being rapid and striking in some, while in others it is scarcely noticeable. In all cases, however, the emaciation at last becomes a marked feature of the case.

During the progress of the change another symptom, which may be termed a *moral change*, develops itself, since it is manifested in both the *habits and temper* of the child; for the little patient, according to its individual temperament, may exhibit all the phases and variations of its nature. Formerly bright and playful, it now becomes morose and sluggish, or irritable and disagreeable. This change of disposition is often supposed to be a reflex condition, due to some primary cause of disease in childhood, such as dentition or some digestive disturbance; but if carefully investigated, no such causative factor is usually discovered.

This moral change in the usual life of the child is not an evanescent one, but is continuously and progressively more marked, and its development should convey a deeper significance to the experienced practitioner.

First Stage.—Generally coincident with the moral change another symptom supervenes which is significant, namely, the existence of a *headache*. This cephalalgia in these cases is char-

acteristic, for it is violent, paroxysmal and generally localized, as evidenced by the actions of the little sufferer. *Vomiting* is usually associated with it, and it is not the ordinary vomiting from gastric disturbances, but the true cerebral vomiting, propulsive or regurgitative in character, unaccompanied by pain or nausea, as, for instance, is the vomiting observed in hepatic or abdominal disorders. These symptoms, accompanied by a mild degree of pyrexia, the temperature most usually exceeding $100\frac{1}{2}^{\circ}\text{F.}$, a slightly accelerated pulse, wakefulness, photophobia, constipation, contraction of the pupils, with possibly some hyperæsthesia of the abdomen, constitute what I would denominate the first stage. In proportion to the intensity of this disease in individual cases will the tardy or rapid succession of the symptoms noted above be manifested, for, generally in affections of the brain, symptoms of irritation and excitation appear first; but sometimes the symptoms of profound depression are initiatory, and this regular succession of phenomena is not so prominent. These prodromal symptoms of the first stage may extend over a period ranging from one to several weeks.

Second Stage.—The second stage of the disease (always supposing there is a regular succession of phenomena) ushers in more pronounced symptoms, and there appears to be an increase in their intensity. The temperature rises slightly, and a peculiar *embarrassment of respiration* is noticeable, the patient sighing deeply and long. The pulse now becomes remarkably slow, and there is generally an interference in its rhythm which corresponds to the change in the respiration. The eyes half close, and the eyeballs move slowly in a lateral direction, one or both pupils dilating. At this period there are sudden flushes of the face and a kind of mottling appears upon the skin, over which, if the finger is drawn, red marks are left temporarily; and a sunken, retracted condition of the abdomen is evident. While these two conditions are characteristic in this affection, they are not pathognomonic. During this stage there is also developed a *cephalic cry*, which once heard is never forgotten. The *remission in the fever*, which is apt to occur now, is often deceptive and may lead to false hopes. *Increased somnolence* becomes apparent towards the close of this stage, and in reality is but the beginning of the end.

Third Stage.—The foregoing train of symptoms is but introductory to the last stage, where *coma* is the prominent feature, overshadowing all the other conditions. Evidences of vital depression and of organic implication are now more marked, and slight twitching around the mouth and eyelids, or a convulsion, followed by ptosis, strabismus, or paralysis of the face or extremities promptly follow. The head may become retracted and all the other symptoms increase in severity till the fatal termination ensues, after a period of three or four weeks.

Not all cases pursue this definite course, for in some children the symptoms may be much milder, while in others there may be so much somnolence from the beginning as to obscure many of them. In fact, to say anything positive about the course of this disease is impossible; it is sometimes acute, sometimes chronic, sometimes presenting long intermissions, and some times steadily progressive. Even the manner of onset may vary much, and the different stages or periods so coalesce as to be scarcely distinguishable from each other.

Differential Diagnosis.—From the foregoing, it is evident that an absolutely positive diagnosis of tubercular meningitis can be made only when a full and true history of the successive phenomena of the illness can be obtained; or when the symptoms of a tubercular meningitis supervene upon tubercular lesions that have previously existed in other organs. Some of the diseases with which tubercular meningitis may be confounded are:

(1.) Simple meningitis. In this disease, the prodromal symptoms are wanting; the history of tubercular infection or predisposition is lacking; the onset is more sudden, and the course is more quickly run.

(2.) Cerebro-spinal meningitis. When this disease occurs endemically or sporadically, the vaso-motor disturbances occur earlier, and the characteristic eruption is apt to be present.

(3.) The hydrocephaloid state. This condition in many particulars is so similar to a tubercular meningitis that it can be differentiated only by a history of some gastro-enteric disturbance prior to the supervention of the brain symptoms.

(4.) Malarial fever. The history of malarial infection, or the proper administration of quinine, usually solves the question

of diagnosis; otherwise, an examination of the blood must be made for the specific germ.

(5.) Typhoid fever. In this disease, the symptoms of a cerebral character very closely simulate a tubercular meningitis, especially if the temperature curve be atypical, as is frequently the case. A microscopical examination of the blood is often necessary as a crucial test, but, clinically, it is always well to remember that in typhoid there is no peculiar or rythmical disturbance of the respiration, as in meningitis from a tuberculous infection.

Treatment—When the prognosis of this disease can be summed up in one word, death, it is evident that so far no treatment has ever been successful. The multiplicity of remedies suggested corresponds only with their inefficiency.

Recognizing personally the utter helplessness of all known measures of therapeusis, as employed in the past, to combat this fatal malady, I purpose in the future to use *anti tubercle serum*, or if that proves inefficient, to employ *surgical means* to remove the intra-cranial pressure. I am aware that such a procedure would be radicalism in the extreme, but it is a principle which is applied to all other forms of internal pressue and engorgement, and the necessities of such cases demand the application of any measures based on scientific warrant. THE ventricles of the brain have been drained and flushed with antiseptic solutions in other diseases, then why not in this? Surely, the phenomenal successes secured in some cases by simply flushing the peritoneum for tubercular disease ought to be encouraging and stimulating to like endeavors in these cases.

In the treatment of this disease, the past is a history of successive and multiplied failures as regards the use of medicines.

Is it a vain hope, then, that in the future surgery may solve the mystery of its successful treatment?

Society Reports.

NEW YORK MEDICO-SURGICAL SOCIETY.

MEETING JANUARY 4, 1897.

Dr. C. C. Fite read a paper on

DIASTASE IN THERAPEUTICS. (See page 145).

DISCUSSION.

Dr. W. L. Stowell.—Medical societies have spent so much time of late in discussing contagious diseases and brilliant operations, that the more common diseases have been largely overlooked. We should, therefore, thank the reader of the paper for bringing up this subject.

For the last five or six years I have been greatly interested in the various forms of indigestion and the remedies supposed to overcome these. Most of the diseases we are called upon to treat, if not due to direct infection, are due to some difficulty in the digestive tract. These difficulties are either fermentation from pathogenic organisms or deficiency of digestive ferments. Antiseptics, while they prevent the formation and development of germs, and so prevent indigestion to some extent, do not assist the digestion of food in a weak digestive tract. Therefore, we need to help the patient by first selecting suitable food, and secondly, by helping him to digest what food is taken in.

For a long time I have used the various malt extracts for their diastatic properties, some claiming them to have great diastatic power, and others not. As a matter of fact, the malt extracts go far towards increasing nutrition, if not nutritious in themselves. Unfortunately if large quantities of malt are given, indigestion arises from this cause. I find many patients rebel against malt; adults often objecting to the taste of it, to say nothing of the effect upon the stomach.

Another useful remedy for starch indigestion is Taka-dias-tase, as it is claimed to have the power of digesting over a thousand times its weight. Certainly a dose of two or three grains will very materially aid in converting the starch, and so minimizing the flatulence and indigestion, and the accompanying disagreeable symptoms.

For some time I did not obtain as good results as I have more recently, probably because I had not learned to distinguish between starch and proteid indigestion. Patients who complain also of constipation most of the time, can, as a rule, be greatly helped by diastase alone. If this does not work well alone, it will do better when combined with salol, or some similar antiseptic. The more I have used these remedies the better I have been pleased with them.

I have been interested in the great variety of symptoms exhibited by different individuals and different constitutions. It requires much close questioning in the case of a child to determine what article of food is chiefly responsible for the indigestion. Diastase is just as good for the nervous individual with indigestion as for a person of phlegmatic temperament, with sluggish secretions and indigestion.

In general practice we certainly meet with a large number of cases of dyspepsia. Americans have the reputation of being a dyspeptic race, and this is certainly true. It is not unusual for a business man to come to us complaining of an attack of indigestion, coming on—not in the morning, as a rule—but in the afternoon after the mid-day meal. They usually complain of heaviness, stupor and languor, and inability to concentrate attention on the work before them. In many of these cases the trouble is due to weariness after the morning's work, the taking of a hurried luncheon and the hasty return to work. Generally the articles of food for the mid day meal are not well selected, but we cannot get them to make a proper selection. What are we to do for these people who complain of distention and bloating an hour or two after the meal? I have had the most satisfaction from the use of the Taka-diastase. One advantage is that it is tasteless. I prefer to give it in capsule, because if administered in the dry form, the patient usually complains of a dryness of the throat. The malt extracts have the disadvantage, as has been said by Dr. Stowell, that the patient very soon tires of them; they become disgusted with the sweet taste, and the bulkiness of the dose. This holds good, no matter in what vehicle the physician may direct that the malt extract be administered.

The question is often asked: What is the advantage of giv-

ing the diastase? It has been argued, principally on theoretical grounds, that the giving of an artificial digestive agent cannot produce a cure, but that it simply does a certain amount of work which the stomach should perform. I think Dr. Fothergill spoke of this practice as "pauperizing the stomach." This may be true in long-standing cases, but it certainly does not apply to the more acute cases. Most of its good effect is produced by supplementing the digestive ferments of the stomach. I have found in certain cases that after washing out the stomach there would be left over from the previous day portions of the food. I have then given the diastase, and have found, on subsequent washings, that a good portion of the food had been digested. The cure is effected, I suppose in this way. Most of the trouble in dyspeptics is probably due to the leaving over of some undigested food from one meal to another. The diastase prevents this.

Again, it is often very difficult to know how to feed children who have been just removed from the breast or the bottle. Mothers are not usually very particular about what the child takes at this period. Here we often find a furred tongue, a bloated stomach, constipation, and an unhealthy child. If we can induce the mother to restrict the diet, and give some form of diastase, we are likely to restore the child to health. I have found it a good plan to soften zweiback with water—not milk—and then sprinkle a little Taka-diastase over it. Or, a little diastase can be stirred up with almost any of the ordinary morning foods, and given to the child without its knowledge.

Dr. George Tucker Harrison.—This is a subject in which I have taken a great interest for some time. Like most clinical observers, I often meet with these cases of indigestion, which in former times, we erroneously looked upon as due to proteid instead of to amylaceous indigestion, I, therefore, hail with pleasure, as a great addition to our therapeutical resources, this new diastase a substance which certainly appears to be worthy of extended and careful trial. The surgeon has of late been giving more attention to this subject, because he has learned that something more is necessary than to perform a brilliant laparotomy for appendicitis, or extra-uterine gestation, or what not. Doubtless patients have been lost from ignorance of the physiology of digestion.

Since Dr. Fite called my attention to this new diastase, I have used it considerably, and have been much gratified with the results of my observations. In one case which comes to my mind—a lady of fifty-five years had taxed my therapeutic resources to the utmost. I had used, among other things, a preparation of *nux vomica*, pancreatin, and *fel bovis inspissatum*. This utterly failed. I began then the use of Taka-diastase, and the result was truly brilliant. The woman suffered from the usual symptoms of intestinal indigestion; flatulence, colicky pains after eating, mental depression, insomnia, etc. In other cases, I have met with equally good success.

I was particularly interested in Dr. Walker's remarks on the use of diastase in infant feeding. These cases have perplexed me beyond measure. Probably there is not a practitioner present this evening who cannot recall a number of cases in which he has felt that the child must starve to death because he was unable to feed it.

My friend Dr. Wilcox says that the trouble with these liquid malt extracts is that, owing to the quantity of alcohol they contain, and the development of acids consequent upon fermentation, the action of the diastase is inhibited.

Last summer I had a child who had to be artificially fed. I made use of the Walker-Gordon method of feeding with no success. I used sterilized milk and barley water with no benefit whatever, and a similar result followed the trial of all the usual preparations. The child was emaciated to skin and bones. I then resorted to milk with a superior quality of malt extract. I have never seen a child thrive as this one did. I believe it was entirely due to the action of what diastase was contained in the malt extract.

Dr. Henry Dwight Chapin.—Unfortunately, I was unable to get here in time to hear Dr. Fite's paper, but I am familiar with his views on this subject, particularly as regards infant feeding. The remarks of Dr. Harrison have interested me especially, for his clinical experience makes these observations carry much weight, although theoretically I cannot understand how the results were obtained.

There are two well known methods of acting on the casein of cow's milk for infants, viz.: (1) the mechanical; and (2) the

physiological. The mechanical method consists in adding some diluent, such as barley water, or the old "flour ball." I think that, on the whole, we get better results by mechanical means than by peptonizing the milk. When the method of peptonizing milk was first brought out, most of us thought that the problem of infant feeding had been largely solved. I tried the method with much enthusiasm, yet I found that the simple peptonizing of milk, did not, on the whole, give very good results. In some difficult cases it certainly does succeed, but this has not been the rule in my experience.

This has led me to go back to the old method of attenuating the milk by the addition of cereals. We all know that young infants cannot digest much starch, although they can digest some by means of the mouth secretions and the secretion of the intestinal mucous membrane. I made a series of experiments at the laboratory, and at the bedside regarding the action of diastase on barley. I think we succeeded in this way in getting the good effects of the attenuating qualities of the barley, and at the same time, in reducing to a minimum the bad effects of the starch. Clinically, this method gives good results in very many cases. The process is not a difficult one, and it is in itself, a recommendation for the method, for in infant feeding it is highly important that the rules for the preparation of the food shall not be complex. Even skilled nurses often make mistakes in the process of peptonizing milk. At times, there may be trouble from a weakness in the ferment itself.

In many cases, by diluting fresh cow's milk with barley or wheat flour, after the starch has been treated with diastase, we shall get about as satisfactory results as from any other method of artificial feeding.

Dr. Morris Manges.—My own experience strongly corroborates that of Dr. Walker as to the value of diastase in infant feeding. How it acts, I do not know, but I know that it does act. With children who do not thrive on breast milk, or substitutes for it, I can say that the addition of ten drops of maltine, or more recently, the use of Taka-diastase, has given me uniformly good results. This is a simple clinical fact.

I believe the use of preparations of diastase has been of service in one way particularly, *i. e.*, in calling our attention to the im-

portance of the saliva in digestion. We had almost lost sight of its value, notwithstanding the fact that it is secreted in such large quantities. We must admit that so far as experimental work has added to our knowledge, we are still much in the dark regarding this important fluid. Just to what substance in the saliva the action on the starch is due, aside from the ptyalin, we do not know. Certainly it is not the ptyalin alone. The experiments of Jawein, of Vienna, and of others, have shown that the ptyalin was lessened in certain acute infectious diseases, diabetes, renal and cardiac diseases; but strange to say, it was not at all lessened in tuberculosis. On the other hand, experiments by Friedenwald has shown that saliva can be boiled and the ptyalin thus killed, and yet the saliva will have a beneficial action in promoting starch digestion. It is evident, therefore, that other constituents besides ptyalin are at work.

Now, by giving Taka-diastase, can we really replace the saliva? That a ferment is, after all, not the original digestive fluid is a point which is very often lost sight of. Every single digestive juice shows us that there is something more than the ferment which is active. Just what important rôle is played by the carbonates, and by the nascent oxygen in the mouth is not yet known. This recalls to my mind an experience with a chemist in Berlin, who was working with very delicate test papers for nascent oxygen. He found that if he used large quantities of saliva, by means of chewing gum, he obtained a most delicate reagent for nascent oxygen.

However, there are other factors to be considered. In the mouth there is a condition of fermentation going on, often leading to acidity. We must be sure of the condition of the mouth before resorting to the administration of ferments. To one who has not investigated this subject, the condition of the mouth is surprising. Dentists understand this matter better than physicians. Another important factor is the selection of the food. If we can accept the term. "amylaceous dyspepsia," it is rational: (1) to take care of the mouth; (2) to select proper food; (3) to insure the secretion of a large quantity of saliva by Nature's means—through mastication of the food; and (4) to resort to ferments. I would not resort to ferments before that, because the pernicious habit of "bolting" the food would

then be rather encouraged. I think, after all, Fothergill was right in saying that these remedies are crutches although certainly very valuable ones—and hence, that they should be used only as temporary agents. It would be well for all of us to repeat the old experiment of adding saliva to starch, and then comparing this with the effect of adding diastase. I think we should hold the diastase preparations in reserve until other methods have failed. Alkalies ought to be associated with diastase, especially in cases of hyperacidity, in order to neutralize some of the excessive hydrochloric acid in the stomach, to permit the continuation of the action of the ferment on the gastric contents.

Dr. William Henry Porter.—I do not quite know why I consented to come here to-night and take part in this discussion, for I am afraid I am not in a position to discuss Taka-diastase, —which I have no doubt is the best preparation of diastase yet produced—or even diastase as a therapeutic agent. The subject of indigestion and of intestinal indigestion in particular, is one of the most interesting ones in medicine, to my mind, but I must confess that I have had very little experience with any of the diastasic ferments. If I wish to correct starch indigestion I get rid of the starch first of all. In the adult it is a comparatively easy matter to get rid of the starch. In my own practice, I rely very largely upon the proper regulation of the diet—a proper regulation of the food as regards both quantity and quality. I think we must admit that the animal organism is capable of digesting a certain quantity of material if up to the physiological par, and that if below this point, it is not able to digest such a quantity. In such a case, we must cut down the quantity to be digested. If we do this we shall find that the indigestion will disappear. I believe that the statement that Fothergill makes, that it is wrong to use artificial ferments, is a wrong view; for, in my opinion, when an individual has fallen below physiological par, in the ability to produce ferments there is also a deficiency, and that they never can digest enough food to keep the system up to par, and so repair the damage. By using these ferments, we can aid the stomach so that a proper supply of nutritive pabulum is taken into the blood. By doing this, we increase the ability of the digestive organs to manufacture ferments of their

own. We can then materially cut down the artificial ferments used, and the individual will quickly return to the normal condition.

There is one idea which is very prevalent in connection with starch, and which I think is a very erroneous one; and that is, that starch is a fat-producing element *per se*. I do not believe the animal organism ever converted starch into fat. If what the chemists say is true, that statement is a correct one. They say that when you commence to split up the starch compounds in the animal organism, they tend to become less complex, and that synthesis does not occur in the animal organism. Therefore I believe we must give up the idea that fat was ever made out of starch. The only reason for that belief was an experiment made many years ago, in which two pigs were taken from the litter, both pigs being of about the same weight. Pig No. 1 was cut up and a quantitative estimate made of the fat. Pig No. 2 was fed on starch and nothing else for a week or ten days. It was then killed, and a quantitative analysis showed a little more fat than in Pig No. 1. Consequently, the statement has been handed down for years, that starch is converted into fat. I believe that all the fat we get in the animal economy comes from the katabolic destruction of proteid bodies, and I think we have pretty good clinical evidence of that. Where we cut off every bit of starch and use simply proteids, sugar, and fat, these people in the absence of starch, will progressively increase in weight.

This comes, I believe, from a better utilization of the proteid elements, and not of the starch and fats. I believe that the fats and the starches are simply heat producing elements. A proper adjustment of the starches and fats is necessary, and when we cut off the starches, I believe we must substitute a little alcohol to generate the heat in about the same proportion as would be generated if we used the starch. A certain number of grammes of starch are capable, for instance, of producing a certain amount of heat. If we deprive the system of that amount of starch, we must get that equivalent of heat out of alcohol.

If we consider many of these numerous little points I think we can very satisfactorily manage these cases of indigestion. Personally, I do not like the term "albuminous" or "amylaceous" or "fatty" indigestion. I think the difficulty is either a gastric one or an intestinal one, and, therefore, in my opinion,

these are the only two kinds of indigestion that we should consider from a clinical standpoint. The sooner we come to this simple method of considering the subject, the quicker we shall arrive at a more rational basis of treatment.

Dr. Charles Henry Brown: The subject of ferments is a very large one, yet very little has been left after the reading of this paper for the practical physician to discuss. Those who have used Taka-diastrase are aware that it is a diastase, and that it will artificially digest starch in the test tube, and also in the fermentative forms of dyspepsia. The subject of ferments begins with the dawn and ends with the night; we see it at birth, and we see it at death; we see it bringing health, comfort, distress, disease. It is a subject which we physician must understand and apply intelligently. We have heard to-night regarding the use of diastase in the feeding of infants. Practically, it aids in the digestion of amylaceous substances. I have used for years some form of diastase in the artificial feeding of infants from birth until they are able to take food independently of the bottle, and I think it is a very great aid to us in the frequent but puzzling idiosyncrasies of infantile indigestion. The question Dr. Porter has raised as to whether starch alone makes fat or flesh is not the one for discussion—it is rather the chemistry of the action of diastase, which undoubtedly produces a certain amount of flesh. If we give pure alcohol, we do not see it; if we give malt, we do see it. People at the time of life when the heat-producing mechanism is most active, put on flesh. A certain force produces this flesh and a storing up of fats.

In Taka-diastrase I think we have a better preparation for treating certain forms of indigestion in adults than any other. It is a powder, and the diastase is measurable. The addition of alcohol interferes seriously with the digestive action of diastase. All of us know that malts which contain a large quantity of alcohol often increase the distress of dyspeptics. There can be no question that Taka-diastrase is a remedy which we can use either internally, or in pre-digesting food. We can also use it in aiding nutrition. Undoubtedly, the use of diastase increases nutrition, probably by stimulating the proteids and increasing heat production by its chemical actions on starch. I have found that delicate infants, when given Taka-diastrase in proper quan-

tities, will show the result of this stimulant action, as well as delicate adults. When given symptomatically, it relieves the distress experienced in the various forms of amylaceous dyspepsia. This seems to me to cover the whole subject, so far as is at present known.

Dr. Glover C. Arnold: What are the maximum and minimum doses of Taka-diastrase for adults and infants?

Dr. Fite: In experiments at the laboratory, it seemed that one grain converted fifteen hundred grains of starch in three hours, one hundred grains in ten minutes. After extended observation it was determined that two grains and a half, given during a meal, was an average dose for an adult. Some physicians have used five grains at a dose, but this has appeared to cause too rapid a conversion of the starch. It seems that the doses for infants are proportionately larger, *i. e.*, one grain for a child of two years.

Dr. William H. Porter; Were these laboratory experiments made with starch and diastase alone, or in conjunction with proteid matter etc.?

Dr. Fite: With all the digestive ferments from all sources and on starches and proteids. Dr. Porter spoke with reference to making fat from proteids. I would like to take him on a farm and let him see how long it would take him to fatten a hog with meat alone.

Dr. Porter: I would like to go with Dr. Fite on a farm and let him try to fatten a hog on starch and sugar, and take out the proteid matter. We must remember that there is proteid matter in corn and grain.

Dr. Harrison: The experiment has been tried on a very large scale and I think it has been proven in an exact, scientific manner that sugar does produce fat. Experiments have been tried on the sugar plantations in Louisiana, and every man who knows anything about it, knows that the "little niggers" all get fat when they are boiling sugar, and get plenty of molasses and sugar cane.

Dr. Porter: There is no question about the fact as stated, but it does not alter the situation of the chemist. An individual is capable of taking in normally 750 grammes of oxygen daily. Starch, sugar and fat burn more rapidly than proteids, and if

they are taken in excess, you exhaust the oxygen supply; there is insufficient oxygen to oxidize the proteids, as a result, one of the katabolic products of the imperfectly oxidized proteids is fat, which of necessity accumulates as fat in the system.

Dr. John Blake White: I should like to speak with reference to the practical aspect of the subject. Theory is beautiful indeed, and is most fascinating, but actual results, and the practical side are, after all, more important. I cannot discuss chemistry with Dr. Porter, but I can speak of the results obtained in practice. These substances certainly do produce fat. Whether this can occur from the chemist's standpoint, or not, I cannot say, but the fact remains.

I desire to add my testimony to the value of assisting faulty digestion by these means that have been discussed here this evening. My experience with Taka-diastase, and other digestive ferments, tends to confirm the position taken by the essayist. I have always looked upon my cases from a purely practical point of view, endeavoring to ascertain what was really at fault, and then remedying this. I endeavor to regulate the diet. In cases where the indigestion appears to be due to the defective digestion of starchy matter, we can resort with advantage to the use of preparation of diastase. The weight of authority certainly favors such a view.

Dr. Fite closed the discussion. He said: I wish to thank you, gentleman, for the interest you have shown in the subject presented in my paper. Dr. Manges alluded to the good work of Dr. Friedenwald of Baltimore with saliva. I have had the pleasure of discussing this matter with Dr. Friedenwald recently and I would say that he has been experimenting with Taka-diastase for the last few months, I think the results of his work will be found to be exceedingly interesting and important. Dr. Friedenwald is high authority in this line of work. So is Dr. Manges.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and any remittances by P. O. Order, Draft or Registered Letter, made payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

TRAUMATISM IN THE PRODUCTION OF CANCER.

The *Lancet* makes the following comments in regard to the report of a recent inquest at the death of a woman who died of cancer, which developed in the breast two weeks after the woman received severe kicks by a gang of roughs:

"The question whether mechanical injury can cause malignant disease is a very interesting one, but in this case it may be definitely decided that the injury had nothing whatever to do with the appearance of the cancer. The short interval—two weeks—between the blows and a noticeable growth is far too short, and, moreover, at the necropsy it was found that secondary deposits had appeared 'all over the body,' but 'especially in the lungs'; such widespread extension of malignant disease must certainly have taken more than four months. But apart from this case there exists a very general opinion both among the public and in the profession that a local injury, such as a blow, is a very common starting point of a malignant growth.

That mechanical injury, such as the rubbing of a rough tooth, may lead to the appearance of epithelioma of the tongue is, of course, certain; but the proof that a blow on the breast without any skin lesion can give rise to cancer is not satisfactory. If such an injury has any influence is predisposing to the appearance of malignant disease it is probably due to the production of a *pars minoris resistentiæ* which is favorable to the development of a new growth. The frequency with which a blow is put forward as the cause of a cancer of the breast is probably to be attributed partly to the popular belief in its efficacy and partly to the satisfaction which most people feel in accounting for any disease from which they may suffer. Blows on the breast as far from rare, and the probability of a blow having preceded the development of a new growth is very great."

While it may not be that, in the case in question, where the cancer appeared two weeks after the traumatism and the woman died four months later, the traumatism was the cause of the cancer, we see no reason for doubting that in some cases the growth of the tumor may date from a traumatism, or that the traumatism does act as an exciting cause in the growth of the tumor. We believe that the most generally accepted theory as to the nature and origin of cancer is that held by Senn, who, in his work on the Pathology and Surgical Treatment of Tumors, defines carcinoma as "an atypical proliferation of epithelial cells from a matrix of embryonic cells of congenital or post-natal origin." This matrix lies dormant, held in abeyance by the physiological resistance of the surrounding tissues. Anything which lowers this resistance and stimulates the growth of these embryonic cells must be considered as the exciting cause of the tumor, whether this diminution of physiological resistance results from the physiological retrogression of the tissues as occurs in the uterus and the mammæ at the menopause or to trauma. "Without the presence of the essential tumor-matrix no amount or kind of injury will produce a carcinoma." (Senn). Of course every injury of the breast does not give rise to cancer, because in many the tumor-matrix does not exist. Neither does epithelioma follow in every case of irritation of the tongue by a roughened tooth, though the author states that it is certain that such irritation may lead to the appearance of

epithelioma. Such men as Paget, Billroth, Boll and Conheim give injury as the cause of cancer in from fifteen to twenty per cent. of their cases. In many instances where carcinoma has followed an injury we must believe that the injury was the exciting cause of the growth of the tumor, and that without the injury the cancer cells might have lain dormant for years, or at least until some other influence stimulated them to growth.

Abstracts.

LIGATION OF THE SUBCLAVIAN ARTERY FOR ANEURISM IN THE AXILLA.—Dr. J. Harrison Hodges, reported to the Florida Medical Association a case of ligation of the subclavian artery for aneurism in the right axilla. The patient was a muscular negro man. He had four years previously had a gun-shot wound in the axilla with considerable hemorrhage. The shot could not be extracted. While cutting wood he felt something give away under the arm, attended by pain and weakness of the arm. A lump began to form and continued to increase in size, causing considerable pain the while, until he came under my care. I found the lump rather tense and the size of a cocoanut. The man plainly showed the marks of suffering and was compelled to carry the arm at almost a right angle to the body owing to the size of the tumor. The characteristic thrill and bruit, while not continuous nor marked, could be detected constantly and clearly enough, taken with the other symptoms and the history, to put the diagnosis beyond doubt.

An incision was made over the course of the artery in its third portion, using as a surface guide the clavicle, making the incision parallel to this bone and one-half inch above it. With the use of a director and a pair of thumb forceps for picking up tissues the sheath of the artery was exposed and opened with small loss of blood and but little use of the knife. The wound was kept open by the use of small retractors hooked in either side. A silver aneurismal needle, threaded with sterilized cat-

gut ligature, was inserted between the artery and the vein and carried under and around the former, taking care to avoid the nerve. The artery seemed much deeper seated than had been found in the dissecting room and the clavicle proved very much in the way of depressing the needle in carrying the ligature around and under the artery sufficient to be secured from the opposite side. I think any one who does this operation for the first time will be doubly convinced that the tying of a great blood vessel, like the subclavian artery, in the living body is assuredly no child's play. The pulsation at the wrist ceased immediately, and the fingers soon became cold and in an hour the whole arm was cold, but afterwards gradually warmed up as the anastomotic circulation became established.

The patient rallied well from the anæsthetic and was soon very much relieved, the pain being greatly ameliorated; but on the third or fourth day the sack began to slough out and continued to do so rapidly, coming away on the seventh day, in one huge suppurating mass, followed by a general oozing of blood into the cavity left by it, from small collateral vessels opening from the sides. From this time he grew weak rapidly and in twenty four hours was *articulo mortis*.

THE DIRECT TRANSPLANTATION OF MUSCLES IN THE CORRECTION OF DEFORMITIES.—A preliminary report on this subject was made before a recent meeting of the Boston Society for Medical Improvement by Dr. J. E. Goldthwait (*Boston Med. and Surg. Jour.*) He said;—"In a paper read about a year ago on the subject of tendon grafting transplantation I made the suggestion—and in that paper the work was confined entirely to the grafting of tendons about the feet—that in all probability the same principle could be applied to other parts of the body, and that probably the muscles of the thigh could be used to help out those which had been paralyzed, and in other parts of the body the same principle could be worked out. In developing that work a clinical study was made of the cases of infantile paralysis so commonly seen in the orthopedic and nervous clinics, in which the muscles of the thigh were more or less involved; and in a very large number of cases all of the anterior thigh muscles were found to be paralyzed, with the exception of the sartorius and the tensor

vaginæ femoris. On looking up the nerve-supply, it seemed rather an unusual condition, because the anterior crural supplies the satorius as well as the other muscles; but Dr. Dwight kindly looked up the minute anatomy, and reported that the fibres going to the sartorius came from the second and third lumbar nerves and the fibres going to the others came from the branches of the lumbar plexus below that. The attempt was made to use the satorius as an extensor, and this young woman has come to-night so that I could show the result of that opération. She has infantile paralysis of the right leg, practically all the muscles of lower leg being involved, and the muscles of the thigh were all involved, with the exception of the sartorius, and the gait was the characteristic flinging gait. About six months ago an operation was done and the satorius muscle transferred. Before this there was no power of extension and the satorius served simply to jerk the leg sidewise. Now she can lift and completely extend the leg. She has lost that flinging gait entirely. The limp is largely due to the fact that the tendo-Achillis and the posterior muscles were all contracted and she walked on the toe. She wears a brace holding the foot so that it cannot drop down, and the gait is partly due to that. Before the operation, having no anterior thigh muscles, it was impossible to bear the weight on the leg. The knee gave way, and down she would go. Now she can walk. In doing the operations one thing very noticeable was the fact that with the extreme atrophy of the anterior thigh muscles you have a condition something like this: the satorius starts properly at the anterior superior spine, and passes directly under the skin across this thick mass of muscle down the inner side of the tibia. This mass of muscle acts as a fulcrum over which the sartorius pulls so that the muscle in a state of health is an outward rotator of the thigh, and an extensor as well. Now this fulcrum being so high, lifts the leg as well as rotates it. When the fulcrum is lost so that the quadriceps is represented by a thin membrane, the sartorius comes down directly against the bone, and it gradually slips around to the side, so that instead of finding the sartorius on the inner side well towards the front, the muscle is found way round to the back behind the adductor muscles. In the first operation I attempted I did not find the muscle. The next time it was found at the back, and it

has been found in the other cases in the same place. One plan was to attach the muscles in the middle of the thigh; but this is not satisfactory, as you lose half of the contractile power of the muscle. The results are not as good as where the attachment is made directly above the patella. If it is possible the attachment of the sartorius muscle is not severed at all; if the muscle is long enough so that it can be drawn up and sewed to the tendon, the attachment is made and no harm can result: but if the muscle is so much contracted, as it has been in several cases, so that it is impossible to loop the muscle up, the sartorius tendon is divided and the end of the sewed through and attached just above the patella. In this case you see the muscle was left at this point and not divided.—*Boston Med. Surg. Jour.*

THE SALE OF PATENT OR PROPRIETARY MEDICINES IN NEW YORK.—A bill has been introduced in the New York Legislature declaring that no drug, medicine or mixture of drugs, herbs or medicines, commonly known as patent or proprietary medicine, shall be sold, offered or exposed for sale in this State, unless an analysis or formula of the contents thereof has been filed in the office of the State Board of Health, and a certificate issued by such Board that according to the ingredients thereof, as indicated by such analysis or formula, the sale and use of such patent or proprietary medicine for the purpose for which the same is advertised or the purchase thereof solicited will not be dangerous to the public health. Every such analysis or formula in the office of the State Board of Health shall be preserved as a record of such board, but shall not be open to public inspection, nor shall the contents thereof be revealed by any member of such board, officer, agent or employe thereof, except for the purpose of a criminal prosecution as provided by this act.

SUCCESSFUL REMOVAL OF A PIECE OF STEEL FROM THE VITREOUS BY THE HIRSCHBERG MAGNET.—Dr. C. O. King reported (*College of Physicians Phil. Section on Ophthalmology*) the case of a man aged 28, was admitted to the wards of the Episcopal Hospital, June, 1896. Six hours previous a piece of steel from an anvil penetrated the right lower lid and the ocular coats, and was lodged in the nasal side of the anterior portion of the vitreous where its

position could be distinctly outlined. The cornea, iris, and lens were uninjured. A minute bead of vitreous protruded from the wound in the sclera. The choroid was ruptured and retinal hemorrhage was profuse at the site of the injury, V. $\frac{20}{100}$. The following day, under antiseptis and cocain anesthesia, an incision was made with a Græfe knife through the conjunctiva and sclera 6 mm. from the corneal border and opposite its lower third. While the edges were retracted by an assistant, the straight tip of a Hirschberg magnet was inserted. Upon withdrawal of the magnet, after its second introduction, a piece of steel 6 x 2 x 1 mm. was found clinging to it. No sutures were used. Recovery was prompt and uneventful. A patch of atrophied choroid corresponding to the rupture can be seen through the now transparent vitreous. The vision has increased to $\frac{20}{70}$.

Dr. Chas. A. Oliver read before the section on ophthalmology of the Coll. of Phy. a report of a case of epithelioma of the corneo scleral junction: The condition was found in a sixty-nine-year-old man. The growth first manifested itself as a small "pimple" at the lower outer corneal border of the right eye, and gradually and painlessly increased in size. When first seen, it appeared as a fleshy and wart-like looking mass about the size of a pea, and embraced an area equal to almost the lower outer quadrant of the cornea.

In spite of careful excision with free thermocauterization repeated more extensively some two months later, the mass recurred until in four months' time it had become so great in size and so angry in appearance, that the eyeball with the surrounding conjunctiva was removed, the operation, by reason of renal and cardiac disease in a weak and feeble patient, being almost painlessly done during local anesthesia by the use of hydrochlorate of cocaine. Up to the present writing there has not been any recurrence.

From a clinical standpoint the case is most interesting. Commencing as a "pimple" in the epithelial structures of the conjunctiva at the transition-border between the cornea and sclera as is almost universal in such cases, the mass gradually and painlessly increased in size until it assumed the papillomatous variety of growth. It then extended into and beneath the epithelium

of the cornea far in toward the summit of the membrane. In other words, the tumor-mass evidenced its development and growth in a manner that is eminently characteristic of epitheliomatous formations.

The quick recurrence and steady increase of the growth, in defiance of the extreme radical measures employed for extirpation, manifestly evidenced the necessity of removal of the entire field of malignancy. The almost uncontrollable oozing of blood, experienced during the operative procedure, plainly showed the extreme vascularity of the neoplasm.

Microscopically, the specimen was exceedingly instructive, not only by reason of presenting the characteristic appearance of epitheliomatous formation in the region involved, but upon account of the undoubted protrusion of the epithelial cells into the interlamellar corneal spaces (which possibly might have been produced or rendered more easy by the operative procedures pursued in the earlier stages of the disease), and the insertion of the same form of malignant cells into the superficial layers of the sclera (layers which were untouched by operation); but is also great interest in substantiating the view that the deepest penetrations of the epithelial cells into the outermost tunics of the eye were in the transition-zone between the cornea and the sclera—that is, at the corneo-scleral junction.

Therapeutic Hints.

CONSTIPATION IN INFANTS.—Give no laxative before the third month and no purgative during the first year. To correct give cow's milk, four parts, and sweetened water, one hundred; rectal lavage by means of the urethral catheter, employing two tablespoonfuls of oil with the yolk of an egg mixed with four drachms of water; massage; electricity.—MARFAN.—*Medical Record*.

FURUNCLE.—Dr. A. Robin administers during the formative period:

℞ Sulphur subl gr. iss.
Pulv. camphor gr. i 1-3.

M. Sig.—Three such capsules or tablets to be given daily. After evacuation and expulsion of the core, the opening is filled with a paste composed of:

℞ Sulphur subl 3 iiss.
Pulv. camphor 3 iiss.
Glycerine q. s.—M.

—*El Siglo Med.*

STOMATITIS APHTHOSA.—The ulcers must be frequently touched with a cotton swab dipped in one of the following solutions:

℞ Sod. salicyl 20.0.
Aqua distill 100.0.

℞ Sod. borici 3.6.
Sod. salicyl 5.0.
Tinct. myrrhæ 4.0.
Aqua distill 30.0.

The patient must drink only boiled or sterilized milk.—*Pediatrics.*

Miscellaneous Items.

The State medical associations of Minnesota have drafted three important bills. One provides for the establishment of a board for the preliminary examination of persons intending to take up the study of medicine; another for the appointment of a commission of medical experts to be employed in criminal and civil cases. In the first class of cases the physicians are to be paid by the State, in the second class by the contestants, as a part of the costs of the suit.—*Ibid.*

Dr. W. E. Headen has removed from Chapel Hill to Morehead City.

Dr. Eugene Grissom has been appointed Assistant Physician to the Colorado Insane Asylum at Pueblo.

We are pleased to note that Dr. J. M. Hays, who has been on the sick list several months, has returned home in perfect health and resumed his practice.

Dr. H. T. Wilson, of the Hoagland Laboratory, Brooklyn, is making a series of experiments with cultures from plague bacilli which were received from China.

Messrs. Wm. R. Warner & Co., announce that they will publish in a few days a convenient pocket medical dictionary which will be furnished to physicians at about cost. The price will probably be 75 cents.

It is said that infants who "want to be an angel" in Russia, can be accommodated at the very small cost of five shillings each. The *modus operandi* is very simple. The woman who undertakes the work, accomplishes it by general neglect and withholding food.

The Legislature of Tennessee has enacted a law forbidding absolutely the sale of cigarettes or cigarette paper in the State. A somewhat similar bill was introduced in the present Legislature of this State but was amended, making it a misdemeanor to sell or give cigarettes to a minor, or for a minor to smoke them. As amended it has passed one branch of the Legislature.

THE BRITISH ARMY IN INDIA INCAPACITATED BY SEXUAL DISEASE.—It is reported that out of 73,000 British soldiers now in India only 24,000 are free from a special disease in a more or less severe form. One-half of the whole army is incapacitated for prolonged marching service. Preventive measures against these diseases proved very effective among the Indian forces when medical inspection of the cantonments women was prac-

tised. Medical regulation of army prostitutes was abolished some years ago through the influence of the English religious organizations. An appeal has been made to the home government by the Viceroy's Council to re-establish the former custom.—*Med. News.*

THE MEDICAL LIAR.—Plagiarism is a personal sin, and he who thus sins does but little harm to his fellows. But quite different is the medical liar. He sins not only against himself, but against his fellows. It makes little difference he whether lies with the direct and deliberate intention of deceiving, or from criminal negligence in ascertaining the truth. In either case he is a public nuisance and an enemy to the profession.—*Archives of Pediatrics.*

The New York hospitals seem to be suffering from an epidemic of fire. On Christmas day there were serious fires at two hospitals, a week or two later Bellevue suffered seriously, and now we read that on the 13th of February a fire caused damage to the extent of \$15,000 or \$20,000 at Roosevelt hospital. Fortunately it occurred in and was confined to the kitchen pavilion, and the patients, though greatly alarmed, were uninjured.

DOCTORS STRIKE FOR HIGHER FEES.—A strike of doctors at Yarmouth, Eng., has just failed. The physicians in the town demanded higher fees from the benefit associations than had been paid, and a limitation of the classes of patients to be attended at club rates. The associations combined, and finding that they provided \$10,000 worth of business a year, established a central office of their own, hiring a doctor from out of town to manage it.—*Med. News.*

PURSUING QUACK DOCTORS.—The New York County Medical Society is after the unregistered doctors and quacks who are practising medicine without a license. Since the law providing for the criminal prosecution of the quacks was re-enacted in April, 1895, the Society has caused the arrest of eighty-three persons for practising illegally in the county, and has obtained

convictions in fifty-one cases. These persons have paid \$3.690 in fines, and in addition a number of them have been sent to jail. The legal department of the society has a large number of cases still pending.

The Laryngoscope, published in St. Louis, has been selected as the official organ, for the year 1897, of the Laryngological Section of the New York Academy of Medicine. This selection, and the great probability of the same journal being chosen by other Laryngological, Rhinological and Otological Societies as their official organ, would indicate that *The Laryngoscope* has become what its proprietors stated that they intended to make it, *i.e.*, The American Journal of Record for the specialties represented.

THE DOCTORS AND THE LEGISLATURE.—Several bills interesting to physicians have been introduced and passed by the present Legislature. Among the most recent is a very salutary one imposing a tax of \$100 per annum upon itinerant opticians and oculists other than regularly licensed physicians. The tax is also imposed upon all persons selling spectacles, which of course includes the druggists and jewelers. It does not include peddlars who are licensed. This is one of the wisest measures adopted by the Legislature as incalculable harm has been done in this State by placing upon persons, and especially children, glasses which are unsuited to their condition.

The Act relating to the license tax will probably remain unchanged. Several bills were introduced repealing the section, but were all voted down. The section relieving physicians from any additional license tax by cities and towns was retained.

The Legislature will probably adjourn on the 6th, or about the time this issue reaches most of its readers, so doctor, take a long breath and be thankful you are no worse off than you are.

Reading Notices.

ADHESION OF PLACENTA, WITH HEMORRHAGE.—I had a bad case of adhesion of placenta, with dangerous hemorrhage. With ergot and Sanmetto the danger was at once removed, and by continued use of Sanmetto, patient, although very weak from loss of blood, improved rapidly, and is now up and about the house helping about her work. In sixty years practice, with an attendance upon more than three thousand child births, I have used no medicine that seemed to hit the case better than Sanmetto in this instance. I am now in my eighty-seventh year and have practiced since 1832.

Viola, Iowa.

S. G. MATSON, M.D.

W. A. Ward, M.D., New Edinburg, Ark., says: I have used Aletris Cordial in threatened miscarriage, in several instances with the best results; one case in particular, the lady was of nervous temperament and very easily excited, but by giving Celerina combined with Aletris Cordial for a short time, she passed over it safely. I am of the opinion that any physician prescribing Aletris Cordial, in such cases as it is indicated, will not be disappointed in the result.

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NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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MARCH 20, 1897.

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PUBLISHED SEMI-MONTHLY AT \$2.00 PER ANNUM.

Robert D. Jewett, M.D., Editor.

[Entered at the Post-Office at Wilmington, N. C., as Second-class mail matter.]

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faulty digestion of starch.**

The profession have tried, says the THERAPEUTIC GAZETTE, to aid the digestion of starch for many years by the use of various preparations of malt, which have been largely given with little direct good as a result, for the diastatic properties of most of these preparations are so slight as to render them practically of no value as digestants, whatever may be their usefulness when acting as nutritives. Within the past few months a Japanese investigator has obtained such a valuable diastatic product that his researches deserve careful study and his results thorough trial. If, as he has apparently proved, we possess in Taka-Diastase a starch-digestant equal to or exceeding in power pepsin or pancreatin for proteids, we have made an extraordinary gain in therapeutics, for we are now able to relieve a large number of persons suffering from faulty digestion of starch, and can aid our patients during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods.

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Original Communications.

SOME OBSERVATIONS IN REGARD TO INTERMIT- TENT FEVER OF A TYPHOID TYPE.

BY JAMES ADAMS HAYNE, M.D., Blackstock, S. C.

IN taking up this subject I fear that I am presenting nothing new to the profession, but the literature I have looked over for data presents very meager facts in regard to a fever which is extremely prevalent in the Piedmont section of Georgia, North and South Carolina and Tennessee. It is very frequently erroneously diagnosed as true typhoid fever, to which when the abdominal symptoms are predominant, it bears a very striking resemblance; by careful study, however, of the symptomatology of the two diseases they can hardly be confounded.

I will try to present a clinical picture of this disease as seen in the Piedmont Section where, on account of its occurrence on the elevated plateaus, it is known as Ridge Fever.

The prodromata are not well marked. The patient complains of weariness, is restless, yawns and stretches; chilly sensations are felt along the spinal column, there is pain and a sinking feeling in the epigastric region, and the fever is ushered in with an atypical sudden chill, not as severe as in the intermittent type of malarial fever. After the chill the fever rises rapidly to 104° or even higher, going in the first twenty-four hours as high as 106° . There is severe pain in the muscles of the back of the

neck with a sensation of cold in that region. There are also pains in back and limbs, headache and various neuralgic pains; the cutaneous surface is red and surcharged with blood; vomiting and retching of a greenish mucus sometimes tinged with blood, or where the case is very severe the coffee ground or black vomit so typical of yellow fever. This last symptom is rarely met with in the more elevated portions of the country. When the fever reaches its height a slight perspiration appears and the patient feels better, symptoms abate and the temperature drops to 100° or 101° . The next twenty-four hours is a repetition of this history except that the chill is absent, though the patient frequently complains of feeling cold, when, if temperature be taken, it will be found to register several degrees of fever, although the hands and feet of patient are cold to the touch. In fact, so peculiar is this symptom that during the course of the disease whenever these chilly feelings are complained of we may be sure the temperature is rising. Thus the fever continues with an evening exacerbation and a morning remission and at the end of eighth or ninth day the patient sinks into the typhoid state which may be described as follows: Patient is adynamic, slipping towards foot of the bed; there is subsultus tendinum, carphalagia with coma vigil, the patient lying in a stupor with eyes wide open; or there may be a low muttering delirium, but seldom the excited wild form of delirium sometimes seen in typhoid fever. It is this stage of the disease that causes it so often to be confounded with true typhoid. The rose colored, lenticular spots of the latter disease, if they can be made out are of course diagnostic, but these spots, though so much stress is laid upon them in text books, do not invariably appear and are frequently very hard to make out, particularly when the patient chances to be a negro. The typhoid stage passes away generally with a profuse sweat and the fever gradually declines, passing into an irritative fever which lasts for a shorter or longer time according to the strength of the patient and the kind of nursing and attention he has been fortunate enough to secure.

During the course of the disease if the fastigium be reached at a later hour each day the symptom is a favorable one, but if the reverse be true it is distinctly unfavorable.

As I have said before, this fever is often confounded with true typhoid, never of course when seen in the first stages, for there the rapid onset without the step ladder rise of temperature of typhoid would differentiate the two; but it is when it reaches the typhoid state that the diagnosis becomes difficult. The exhibition of a large dose of quinine will give you a decided fall of temperature in the one while in the other there is but slight change noticed.

The marked anatomy of this disease presents some interesting features.

The blood shows on examination a disintegration and breaking down of its red corpuscular elements and the plasmodium malarizæ may be found to be present, though their absence must not be considered proof positive of the non-existence of malarial poisoning, for I have examined the blood of patients undoubtedly suffering from this disease and not found any of these to be present.

The Brain, where symptoms have been severe, will be found to be stained a brown chocolate color from the blood dyscrasia.

The Liver is enlarged and hyperæmic and stained from contents of gall bladder.

The Spleen enlarged and on section seen to be full of dark grumous blood.

The Stomach and Intestines may or may not present any marked symptoms being generally hyperæmic.

The Kidneys show cloudy swelling and passive hyperæmia.

The Lungs sometimes show signs of a labor pneumonia but only when this has been a complication of the disease.

The ætiology of this disease is the ingestion of the plasmodium malarizæ either by means of the drinking water or some other source. It is claimed that it may be taken into the system through the lungs, but my experience has been, that where the disease occurred it could be invariably traced to the water supply.

It is true that it sometimes occurs epidemically, but this does not disprove the drinking water theory as the water supply of a whole country may contain the malarial germs.

The Prognosis of this disease is on the whole favorable where the surroundings of the patient are good and where competent

nursing can be secured but among the poor, and especially among the negroes, the mortality is fearful.

Treatment.—There is no disease except typhoid fever where more careful nursing is demanded. The remedies are few and simple but they must be given by a skilled hand with good judgment. The fever must be kept under control, the weakness of the patient must be soothed. To meet these indications what shall we do? First to keep the fever under control the temperature must be taken every two hours and if over 101° some fever mixture, such as the following should be given:

R—Acetanilid 3 iij.

Simple elixir. . . . 3 iv.

M. Sig.—Teaspoonful when there is fever.

If the temperature be above 103° cold sponging until temperature be reduced, or the wet pack, or cold full bath if temperature be very high. During the remissions quinine in doses of 5 grains should be given remembering, however, the fact that this remedy frequently increases the nervousness of the patient and also irritates the stomach. Sometimes inunctions of quinine and butter on inner side of thighs and armpits are useful where the stomach cannot bear the remedy. To keep the strength of the patient up the best French brandy should be administered plain or in the form of milk toddy.

The food of the patient should be *milk* diluted with lime water. No solid food whatever should be allowed until fever has entirely disappeared. Horlick's malted milk is easily prepared and easily digested, also some of the varieties of beef peptonoid with sherry wine. Lastly to combat the nervousness the bromides of sodium and potassium are perhaps the best for they not only sooth the nervous system but are also antipyretic in their action.

The bowels should be looked after and a daily evacuation secured either by the administration of a mild laxative such as Hunyadi Janos water or by an enema. The kidneys should also be watched and a diuretic given when the urine is very high colored and of high specific gravity. During convalescence the patient must be watched, for the ingestion of indi-

gestible food invariably records a rise of temperature. The irritative fever lasts for an indefinite period and recovery is very slow with frequent relapses.

SIMPLE CYST OF THE RIGHT OVARY AND DERMOID
CYST OF THE LEFT CONTAINING A QUAN-
TITY OF LONG HAIR. REMOVED BY
VAGINAL SECTION.—RECOVERY.

BY AUGUSTIN H. GOELET, M.D., Professor of Gynecology in
the New York School of Clinical Medicine.

THIS case is of unusual interest because there was a true cyst of the right and a dermoid of the left ovary containing a considerable amount of long hair and because of the rapid convalescence from the operation without a single unfavorable symptom.

Mrs. S. of Poughkeepsie N. Y. 52 years, married 32 years 5 children the youngest being 2 years old; had one miscarriage 25 years ago at the fifth month which was said by her medical attendant to be a false conception. At that time she had missed her menstruation for 3 or 4 months and began to have a show when her physician put her to bed to tide over the threatened abortion. After three days she was taken suddenly with severe pain and passed a large clot. Her convalescence was rapid, so far as she can remember. Two years after this she had a child.

She has suffered with stomach trouble, nausea and vomiting for the last 5 or 6 years. She supposed it was change of life. During this time menstruation was very irregular. She would miss for 3 or 4 months and when it came on she would pass clots.

For a year up to last fall she did not menstruate or have any show whatever. Last fall though she menstruated twice at the proper interval. Then she missed until August of this year when she again menstruated naturally she thought. About 3 years ago she consulted a specialist in this city who inserted a stem pessary which shortly set up pelvic inflammation and it was

removed. After recovering it was again inserted. She then consulted a prominent surgeon in this city who told her there was nothing in her case but change of life. At this time she complained of backache and burning pain in pelvis. Last fall this same surgeon told her he would have to operate on her rectum—to this she consented. He told her he removed some growth from the rectum. She was no better afterwards but continued to complain of the same symptoms. Last spring he examined her and told her he must remove a small growth from inside of the uterus. This he did without an anæsthetic, burning it off. After this he inserted a pessary because he said the uterus was out of place. It came out in a few days after it was inserted and becoming disgusted did not return to him.

I was asked by Dr. O. S. Phelps to see the case on Oct. 21st. I found upon examination a good size cyst to the right of the uterus and another tumor somewhat firmer but apparently cystic on the left of the uterus which was displaced forward, by these growths, against the bladder. I advised their immediate removal by vaginal section which was consented to. The operation was done Oct. 27th, their removal being accomplished through an incision in the vaginal vault posterior to the cervix. On bringing down the tumor on the left which was the smaller growth, a quantity of thick yellow fluid resembling pus escaped and I soon discovered the tumor was a dermoid filled with hair, which on examination of the specimen seems to spring from a elevation resembling a nipple, on the inside of the cyst wall. The hair appears to be of great length. As yet it has not been successfully unravelled.

The pedicle was ligated with heavy silk and returned into the peritoneal cavity. The other tumor which proved to be a true cyst was brought down and emptied, the pedicle ligated with silk and the stump returned into the peritoneal cavity.

The vaginal incision was not closed, but iodoform gauze was inserted against the stump to prevent adhesion and for drainage the vagina being subsequently filled with gauze. A part of this gauze was removed at the end of 24 hours and the whole at the end of 48 hours.

On the sixth day after the operation the vagina was found to be entirely healed, and on the twelfth day she was permitted to

get up. She made an interrupted recovery without a single unfavorable symptom and left my sanatorium three weeks after the operation. There was no shock following the operation and the temperature at no time went above 99°.

ACUTE LABOR PNEUMONIA—TREATMENT ESPECIALLY.*

BY RAMON D. GARCIN, M.D., Richmond, Va., Instructor in
Practice of Medicine, Medical College of Virginia.

Prognosis.—Osler makes the statement, in his classical work, that "Pneumonia is one of the most fatal of acute diseases. Hospital statistics show that the mortality ranges from 20 to 40 per cent. Of 1,012 cases treated in the Montreal General Hospital, the mortality was 20.4 per cent. It appears to be somewhat more fatal in Southern climates. Statistics from the Charity Hospital, New Orleans, show the death-rate to be 28.01 per cent. It has been urged that the mortality in this disease has been steadily increasing, and attempts have been made to connect this increase with the expectant plan of treatment, but careful analysis of 1,000 cases by Townsend, in the Massachusetts General Hospital, indicates clearly that, when all circumstances are taken into consideration, the conclusion is not justified. He found that when all fatal cases over fifty years of age were omitted, and those patients who were delicate, intemperate, or the subject of some complication, there was very little variation from decade to decade, and that, excluding these cases, the rate was little over ten per cent. In answer to the assertion that the modified treatment is in part responsible for the increased mortality, he shows clearly that the rise in death-rate took place in the period prior to 1860, when the treatment was entirely or in great part heroic."

In a short interview with a prominent member of the profession, he made the statement to me that in a discussion of the mortality of acute pneumonia with Dr. Hunter McGuire, their

*Read before the Richmond Academy of Medicine and Surgery.

experience with this disease was similar. They had never known a young adult, whose previous history was good, to die with pneumonia. A careful study of my notes of cases shows that, while I have treated a good many cases, in healthy young adults, my limited experience has been the same as theirs.

Diagnosis.—"No disease is more readily recognized in a large majority of cases. The external character, the sputa, and the physical signs combine to make one of the clearest of clinical pictures."—*Osler*. Dr. Osler says: "After a study, in the post-mortem room, of my own and others' mistakes, I think that the ordinary labor pneumonia of adults is rarely overlooked. Judging from my autopsy records, I should say that errors are particularly liable to occur in the intercurrent pneumonia, in those complicating chronic affections, and in the disease as met in children, the aged and drunkards. Pleurisy, with effusion, is, I believe, not often mistaken, except in children."

Treatment.—Wood and Fitz: "In the treatment of pneumonia, it is essential to recognize that, though the disease may be a unit from the pathological point of view, therapeutically it comprises essentially diverse diseases. A pneumonia whose physical signs cannot be made out in the beginning, but gradually creep up towards the chest wall, a pneumonia whose expectoration is in the beginning prune juice, whose crepitant râle is never typical, whose physical signs are obscure until complete consolidation gives percussion dullness, or a pneumonia occurring in the alcoholic, in the old, in the victim of renal disease, in the broken-down debauchee, is, in its management, essentially distinct from a pneumonia the result of exposure of a strong, healthy countryman to a Western blizzard or other cold." "When, in the first twenty-four hours of a pneumonia, there is violent constitutional reaction, with flushed face, rapid and noisy breathing, bloody sputa, intense headache and drowsiness, a hard, bounding, or a tense, corded pulse, venesection may markedly lessen all the symptoms, and, if combined with dry cupping over the whole chest, may, we believe, lessen the amount of engorgement of the lung and the final area of consolidation." Wet compresses, and even the application of the ice-bag very freely over the affected lung, are recommended by

some of the leading text-books and authorities; and just at present, the ice treatment is quite a fad at the North. At the very beginning of an attack, where active congestion is just begun, ice might prove of service, as it is of value in any other form of active congestion; but, even then, it should be, it seems to me, used with the greatest caution, if at all, because of the shock, more or less, and the causes calling for its indication should have to be very carefully selected. Personally, I have had no experience with it, and shall certainly not use it, till I am fully convinced that the after-effects are not worse than the remedy. "The question how far we should attempt to reduce temperature is important in the extreme, and is answered very differently in practice by different practitioners." Although a great many authorities advise against the use of any of the coal-tar class, my experience does not agree with their statement. When the temperature is 103° - 4° , I use frequently, five grain doses of phenacetine, repeated at regular intervals, until the fever is reduced to 100° or so, and never, as yet, have I seen any but the best results follow its administration. Quinine, if used, has to be employed in large doses, and rather does harm than good, because of the resulting nervous excitation. I prefer the bi-sulphate or muriate.

"To prevent exhaustion, by maintainiug the forces of the patient, is the great object of the nursing in pneumonia. Absolute confinement in bed from the beginning, regulating the temperature of room 70° to 74° , feeding at regular intervals (two or three hours),—food should be simple, nutritious, and digestible; milk, animal broths, clam broth is very acceptable." Panopepton (Fairchild's) and peptonoids (Arlington Chem. Co). "Alcohol in the beginning of sthenic pneumonia, is injurious. In the advanced stages of the disease, it being regarded therapeutically as allied to an infectious fever, it is of service, employed judiciously." "In the advanced stages of a severe pneumonia, tinct. digitalis, 5 to 15 minims at intervals of 4 to 6 hours, acts well as a heart stimulant. Its effects upon the pulse should be the guide for administering it."

Nitro-glycerin and amyl nitrite should be used with caution in sufficient doses to produce effects. They always lower the arterial pressure by depressing directly the muscle fibres in the

blood-vessel's walls, and although their first action upon the heart is a stimulant, the slightest over-dose converts such action into that of a powerful depressant. Carbonate of ammonium is very largely used, both as a stimulant and as an expectorant." Some authorities, among them one that I quote from very freely—Wood and Fitz—say, "there is no reason for believing that it has any effect on the consolidated lung, and that its power as a stimulant is certainly inferior." I must enter my humble protest against these assertions, for in several hundred cases of this disease I have treated in hospital and general practice, I can candidly say that I have found this drug of the utmost service, both as an expectorant and stimulant. My dosage is also at variance with theirs. They advise three grains or so; I employ five to ten grains, as indicated in the individual case.

Aromatic spirits of ammonia is also valuable as a cardiac stimulant when needed. The most important drug, in my hands, as a respiratory and circulating stimulant, is strychnine. "The special indication for the free use of this agent is cyanosis, with hurried breathing and other evidences of respiratory distress." "For relief of local pain, dry cups probably give quickest relief."

Blisters, the greatest single agent in treating this disease, have saved more lives than all the drugs in the materia medica. If used skilfully and when indicated, that is, in the beginning of the third stage, they will afford prompt relief from pain, aid the expectoration of the clogged lung, and very materially hasten convalescence.

In conclusion, allow me, from the limited time assigned me, to entirely disclaim originality for this paper. The great mass of it is quoted from authorities—Osler, and Woods and Fitz. I have given them due credit for all their quotations, which are taken literally and liberally from their works.

Society Reports.

ORTHOPEDIC SECTION OF THE NEW YORK ACADEMY OF MEDICINE.

FEBRUARY, 19, 1897.

Dr. A. B. Judson, on taking the chair, said: In these times of activity in scientific discovery it is necessary for us to be alert. Let us practise condensation in our papers, so that important points will stand out and compel discussion. I propose a rule of 15 minutes for a brief paper, 30 minutes for a long paper and 5 minutes for remarks in discussion. Let us also be moderate in discussion. A is obviously unreasonable in his theories, B undoubtedly adheres too closely to tradition, C and D evidently are after the almighty honorarium, E is visibly prone to follow strange foreign gods and F, alas, has an unfortunate way with his patients which leads to certainly dubious results. But each one of them knows more about orthopedic surgery than the wisest man twenty-five years ago and they doubtless have a generous regard for each other and the remaining letters of the alphabet.

Dr. Samuel Ketch read a paper entitled: "Remarks on the Orthopedic Treatment of Spastic Paralysis in Children." Patients thus affected are those whose mentality is (1) nil, (2) diminished and (3) normal or nearly so. The treatment should include special education of the muscles. I have never seen any advantage from the use of electricity in any form. If used at all, constant current may have a good sedative effect. Massage has but little value in these cases. Mechanical treatment is directed to improvement in locomotion or reduction of deformity and produces its best effects in patients whose intellects are least impaired and in deformities and disabilities of the lower extremity, especially when the judicious use of the superincumbent weight corrects the elevated and inverted feet. Tenotomy is certainly a useful resort. Opposition to it is based on theoretical grounds the results in patients who are not proper subjects for operation or whose aftertreatment was neglected. With growth there is a lessening of the spastic element and the degree in which this has

been displaced by a fixed deformity should be considered in undertaking mechanical or operative treatment. Patients in whom the deformity is the result of marked spasm resist treatment or are liable to relapse. Apparent mental improvement occurs with better locomotion and general improvement.

DISCUSSION.

Dr. Frederick Peterson (from the Neurological Section): A great deal may be done by pedagogy or education of the muscles by efforts of the will, by active, not passive, movements, as, for example, using the typewriter or playing the piano in the case of a paralyzed hand.

Dr. William M. Leszynsky (from the Neurological Section): I have seen no benefit from electricity. More can be obtained from efforts of the will. Persistent efforts to walk are sometimes sufficient to restore the function of the muscles. In cerebral palsy, of course, little can be done.

Dr. R. H. Sayre: I have found Faradism a good way of giving gymnastic exercises to muscles not under control of the patient, as one of the means of pedagogy of the muscles. After various tenotomies to place the parts in normal relation to each other, we can do a great deal in the way of educating these muscles.

Dr. V. P. Gibney: In the prevention of these deformities further advance is to be sought in researches into the underlying neurological condition.

Dr. H. L. Taylor: Benefit is to be derived not only in children but also in adults from mechanical treatment and tenotomy. The contraction is not easy to control by braces, it will return when the brace is removed. Tenotomy not only makes it possible to retain the foot in position, but has a decided effect upon the spasm. The tendon is cut for the specific purpose of relieving the spasm. A very marked mental improvement follows this treatment.

Dr. H. W. Berg: As many of these cases accompany idiocy, pedagogy of the muscles will apply most aptly. The sense of sight should be developed by bright colors, hearing by the use of bells and increased motor ability developed by repeating cer-

tain motions a great number of times. Years of patient toil may thus be well spent. I am rather in favor of galvanism. In the results of meningeal hemorrhage, education of the muscles is "love's labor lost" and, while tenotomy here has a place, the treatment is radically different from that of patients in whom idiocy accompanies spastic paralysis.

Dr. N. M. Shaffer: As long as approximately normal movements can be obtained by passive motion, tenotomy is not needed. In time, however, the spastic contraction becomes a contracture with permanent deformity, together with improvement in the mental condition. It is only where these changes are observed that tenotomy is indicated and the operation is then followed by better results than when done at an earlier stage.

Radical improvements occurs with growth as the result of the general changes which occur every seven years. For these reasons the time at which an operation should be performed is an important question, and a delay of two or three years sometimes secures a distinct advantage, passive exercise being practised in meantime, one-half an hour or an hour each day.

Dr. Peterson: In these cases the paralysis is not to be considered as the result of idiocy. Degrees of idiocy, palsy and epilepsy are all symptoms of cerebral injury received before or during parturition or within two or three years after birth. Idiocy is a symptom often associated with spastic paralysis. In idiots we find, sclerosis, atrophy and cysts but not hemorrhage. In spastic paralysis, while we find meningeal hemorrhage, there are few cases in which deficient development of the brain is found post-mortem. In these cases we have no irritability of the spinal cord but rather exaggerated reflexes from cutting off of inhibition. Mental improvement often follows education of the muscles but where it attends any muscular change from contraction to contracture, it is probably a coincidence. As these muscles do not react so well with the galvanic current, the faradic would give them better exercise. The former often irritates the skin, but children rather like the latter.

Dr. Ketch: The benefits of special education of the muscles are best obtained in the schools conducted for the instruction of the feeble-minded.

SPECIMEN SHOWING "SECONDARY POTT'S DISEASE WITH COMPRESSION OF THE CAUDA EQUINA, FOLLOWING EMPHYSAEMA".

Dr. George R. Elliott presenting a specimen from a man 28 years of age, who had tubercular involvement of both lungs and purulent exudation into the right pleural cavity. Later there were slight lumbar kyphosis, slight motor paralysis of the lower extremities and pain and knee-jerks varying with the position of the patient. While lying on the right side pain ceased and knee-jerks returned and disappeared when he was lying on the left side or back. At the autopsy the right pleural cavity was found filled with pus and an extra-dural sinus extended from the tenth dorsal vertebra, where it communicated with the right pleural cavity, to the 2nd lumbar vertebra. The tenth vertebra was carious and the fourth and fifth lumbar were softened, with a small abscess cavity separated from the cauda equina by an area of pachymeningitis externa caseosa. The central surface of the dura is intact. The extra-dural sinus rested upon this caseous mass and did not mix its contents with those of the extra-pachymeningitic abscess cavity. No microscopic degeneration of cord. Points of interest: (1) Entrance of pus from pleural cavity into vertebral canal, the usual order reversed; (2) dural secondary involvement of vertebral column; (3) compression symptoms varying as the patient changed his position, with varying quantity of pus in the epidural canal which communicated with the pleural cavity containing pus. The patient had lung trouble before any signs or symptoms of vertebral caries appeared. Whether evacuation of the pus had been a part of the treatment, *Dr. Elliott* could not say as he did not see the patient during life.

Dr. Shaffer related a history in which an adult man, who had caries extending from the seventh to the eleventh dorsal vertebra and an abscess over the ribs. Every three or four weeks he had a cough with expectoration of fragments of the vertebra, the general health remaining good.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

REGULAR MEETING HELD FEBRUARY 9, 1897.

Dr. J. N. Upshur, President, in the chair. Dr. Mark W. Peyser, Secretary and Reporter.

Dr. Raman D. Garcin read a paper on

LOBAR PNEUMONIA. [See page 187.]

DISCUSSION.

Dr. Landon B. Edwards said Dr. Garcin was correct in regard to phenacetine, if we undertook to relieve pain and bring down fever, when used with caution and in moderation. Than strychnine, no agent is more valuable; and in combination with digitalis, it aids resolution and sustains the heart. He did not think enough stress had been laid upon the use of jackets of cotton batting or oil silk in this condition.

Dr. Moses D. Hoge, Jr., referred to the application of blisters, saying that by some it was used as a derivative, which was nonsense. It was not proper to apply them in the early stage, the only benefit here being the relief of pain; the disease cannot be limited. The best time for their employment is during the stage of resolution. Up to this time, there is little blood in the capillaries; but when resolution sets in, the blood-vessels dilate, some pus is expectorated, and some is got rid of by the lymphatics. The counter-irritant and stimulating effects are best obtained in this fourth stage. Recently, the inhalation of chloroform and alcohol in equal parts has been advised to abort pneumonia.

Dr. J. W. Henson remarked that he had a fixed rule regarding the use of the blister. He puts it on as soon as he discovers pneumonia, and its benefit is purely a reflex vaso-motor one. Why apply blisters for acute inflammations at other points? He has never seen a case hurt by it, and not one not benefited. The following case was cited: Man, aged 30 years, sick nearly twenty-four hours. There was violent pain in the head, and over the lower lobe of the right lung; temperature, 104°F.; respiration rapid; pulse, full and bounding, and consolidation almost complete. A blister 5x7 was applied. On the following morning, there was no temperature, no pain, the man was hungry and desired to return to his work. There were no signs of dis-

ease from that time on. The only cases seen not benefited by blisters were inebriates and the old.

Dr. C. R. Robbins spoke of the use of hot bricks under the bed-clothes to produce copious sweating, being renewed from time to time. They were applied from the beginning, and hastened the progress of the disease, being analogous in their action to cotton-batting. One drug he used to almost the exclusion of others was the aromatic spirits of ammonia.

Dr. W. S. Beazley agreed fully with *Dr. Henson* regarding the use of the blister. He applied it in every case at once, and had yet to see a bad result.

Dr. Virginius W. Harrison had never used a blister; had never seen occasion to do so. He applied the cotton jacket and stimulated the patient.

Dr. Edwards said *Dr. Henson's* case was probably a lobular pneumonia or a bronchitis that might have developed into lobar pneumonia if let alone. The blister might not do damage; but would it do good? He did not see the necessity for it; it was too violent. If at the beginning the individual was healthy, he would get well, unless a complication ensued. He did not believe blisters had a particle of benefit in the first stage of lobar pneumonia.

The President remarked that he was more and more convinced of the gravity of lobar pneumonia, and more and more at sea as to its management. But he was convinced of the value of certain remedies. For one thing, he was at sea concerning the definition—an acute, infectious, self-limited disease—but he has over and over again cut it short in the first stage. He had been told he had cured congestion. What is the inflammation but congestion? Recently he saw a case in which there were all indications of collapse. He was called to it at 4 a. m. The patient was in such agony that nothing could be determined, but, probably, friction sound. He gave what he much deprecated—morphine—and the patient slept four hours, awaking with pain, which disappeared upon the application of a blister. She was benefited by what is described as counter-irritation. He could recall but one case which came to a crisis, and was self-limited. He believed that drugs might add to the comfort and safety of the patient. He did not believe all cases were caused

by germs, which developed because the soil is fertile, rather than *vice versa*. Osler cannot explain pleurisy by a germ.

Treatment.—Quinine, phenacetine, full doses of carbonate of ammonium. He had seen the last bring patients back almost from the verge of the grave. It did good not only by stimulation, but by its property of promoting the fluidity of the plastic material in the blood. Diaphoretics should be given in the early stage to lower the temperature and get the blood into the skin. He believed blisters of benefit, but did not always apply them in the first stage. Morphine, in full doses, was contra-indicated. To one agent, he called attention, Fowler's solution, which was especially valuable in the stage of resolution. Valuable in the early stages were full, free applications of turpentine stupes; and at the commencement, cotton batting jackets and flaxseed meal poultices.

Case I. refers to that already mentioned. It was on a Tuesday he was first called. Both lungs were intensely congested. He regretted having given morphine and not blistering immediately. The case continued in gravity without responding to treatment. Wednesday night was spent at the bedside of the patient, and at 7 a. m., he left the patient cyanotic, etc. At 10 a. m., she died.

Case II. was a sister of Case I., aged 53 years. At midday Tuesday, she complained of feeling unwell. By midday Wednesday, she passed into a comatose condition, and was dead at 5 p. m.

Dr. Hugh M. Taylor believed that the case reported by the President were proof positive in themselves of infection.

The Secretary, referring to the oxygen treatment as mentioned by Dr. Garcin, said that while he had had no experience with it in pneumonia, he believed he had used it with entire success in a case of capillary bronchitis. His method was the vaporization of hydrozone by the apparatus made for the purpose. He believed it would be valuable in pneumonia. Commenting on cold-water applications, he said the beneficial results in his opinion, were not alone direct as by the reduction of fever, but also due to the production of a leucocytosis.

Dr. Henson said he would not be convinced that pneumonia was not benefited, and perhaps cut short, by the application of

flying blisters, until reported cases had been diagnosed by the microscope in the early stage, and those cases subjected to the treatment by blisters without benefit. It was a matter worth thorough investigation in that line, for it was the only way to decide positively whether or not blisters would aid in true lobar pneumonia. If blisters did no good, we ought not to use them; and conversely, if they benefited, we by all means, should apply them.

In regard to Dr. Edwards' criticism of the diagnosis of the case mentioned, it was rather peculiar to have a bronchitis limited to one lobe and producing complete consolidation of that lobe, with absolutely no trouble in other parts of the lung; and all this with a temperature of 104° , the patient being a young and very robust adult.

Dr Henson said he had seen a blister reduce temperature from 104 to 101° when the patient had profuse expectoration.

Dr. H. H. Levy remarked that his idea was that pneumonia was a self-limited disease, and that he had treated a number with critical terminations, without blisters and almost no medication. He had seen them terminate as early as the seventh day, and sometimes earlier, sometimes later. Ordinary cases may get well without any nursing, while others require much care. If pleurisy were conjoined, then a blister might be of benefit. If resolution were retarded, he might be inclined to put on a blister, but this was theoretical after all. In the old, he employed stimulation by means of ammonia and whiskey.

REPORTS OF CASES.

REPORT OF EIGHT CASES OF PARAPLEGIA CURED.

Dr. J Allison Hodges reported eight cases of paraplegia cured during the last year. Three of them were cases of paraplegia from *multiple neuritis*, in which the paraplegia had been well marked for six, thirteen and eighteen months in patients aged 9, 17 and 19 years respectively. The treatment in these cases was substantially the same, namely: Salol, quinine, swathing the limbs, faradic electricity, warm, alkaline baths and hygienic regimen. Another case was *traumatic myelitis* in a young girl, aged 21 who had been paralyzed for a little more than twelve months

by a fall on roller skates, the injured veretebra being those of the lumbar region.

Modified rest and suspension, together with forced feeding, were the only therapeutic measures used. A fifth case was, after a month's treatment, diagnosed to be a *hysterical paraplegia*, and treatment was directed to that end with most gratifying results.

The sixth case was one of those rare cases of paralytic *astasia abasia* that are so nearly allied to hysteria. The seventh and eighth were cases of *syphilitic myelstis*, one of them them occuring during the regular succession of specific symptoms; the other not supervening till after the cerebral syphilis, and not yielding to treatment until immense doses of the iodides had been given.

THE NORMAL MALE URETHRA.

Judassohn and Dreysel report results of their investigation of the normal urethra (*Archiv. f. Dermatol. u. Syph.*, Bd. xxxiv, p. 3491). They found the capacity of the anterior urethra to be much greater than it is ordinarily given, depending of course on the power of resistance in the musculus compressor urethræ. With an irrigator held at a height of 80 cm. the average capacity was found to be 7.8 c.cm.; at 130 cm., 10.65 c.cm.; at 200 cm., 12.9 c.cm. The average quantity which could be injected with a syringe was 11.8 c.cm. The greatest capacity found in any case was 22 c.cm.—a little over 5 drams. It follows from this investigation that in order to accomplish the maximal distension of the urethra, which is so important in gonorrhea, the irrigator should be hung very high.

Of the capacity of the posterior urethria one cannot really speak, for the most minute quantity of fluid injected into it flows at once in the direction of the least resistance, that is, in most cases, into the bladder.

Another interesting point which the authors determined is the reaction of the mucous membrane of the urethra which they found to be constantly alkaline, even after the passage of very acid urine. An occasional exception was found in the fossa navicularis. However as gonococci grow upon both acid and alkaline media this point has no evident practical bearing.—

Medical News.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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All communications, either of a literary or business nature, should be addressed to, and any remittances by P. O. Order, Draft or Registered Letter, made payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

ANNUAL REPORT OF THE SUPERINTENDENT OF THE WILMINGTON CITY HOSPITAL.

The report of Dr. W. W. Lane, Superintendent of the Wilmington City Hospital shows considerable change and improvement in the condition and management of this useful institution during the past year. After several conferences of the local profession with the Board of Managers, there was created a Board of Regents, consisting of five physicians, to co-operate with the Board of Managers in the management of the institution. Rules were adopted setting forth the duties of the Board of Regents and of each of the employes of the Hospital, and for the governance of the patients and visitors. There has been great need for such a set of rules and their enforcement will work great good to the Hospital. There has been no change in the personnel of the Hospital staff, except that two physicians of the city are selected each two months by the Board of Re-

gents to serve as visiting physicians. This is an important and wise step, inasmuch as the surgeon in charge is thus greatly aided by the counsel of these gentlemen who are required to make the rounds of all the wards daily.

The condition of the hospital has been greatly improved. The colored ward has been brought nearer to the main building to which it is connected by a covered piazza, the whole building renovated and freshly painted, and a new and convenient operating room, with concrete floor, provided. The grounds have also received attention and the shell drives and ornamental flower beds add much to the attractiveness of the place. There is room for still farther improvement in this direction, and at small cost to the city, if the inmates of the city prison were utilized.

There has been done much good work during the past year, neighboring counties for an hundred miles around sending patients to receive the benefits of careful hospital treatment. There were admitted, during the year, 279 patients with 8209 days of relief, a larger number than in any previous year. Of this number sixty were pay patients. The surgical work embraces such operations as laparatomies, excisions of the clavicle, thigh amputations, breast amputations, suprapubic urethrotomies, etc., etc.

The Superintendent appeals to the Board of Managers for several additional improvements, some of which have been sought year after year, and we are surprised to say, in vain. One of these, and it should be supplied at once, is an ambulance. The cost for keeping a horse would be very small, and the present method of conveying sick people to the hospital in an open city cart is neither conducive to the welfare of the sufferer nor becoming the dignity of a well conducted city. We hope that before another year has been added to the history of the hospital, the Board of Managers will have seen fit to supply these real needs that have been asked.

INFLUENCE OF HEREDITY ON TUBERCULOSIS.

The *Kansas Medical Journal* says: "Few men at the present day accept the old theory of the heredity of tuberculosis and yet the majority of examiners for insurance companies and insurance fraternities reject applicants who have a family history of tuberculosis," as though the fact that a man's parents had died of tuberculosis has no influence in estimating the man's life expectation. This rule of the insurance companies was based on the fact that the children of tuberculous parents were more liable to contract the disease than were others. While the "old theory" that the disease itself is hereditary may have been disproved, the fact that the children of tuberculous parents are very liable to contract tuberculosis is as true as it ever was. A fountain cannot rise higher than its source, and we cannot expect feeble parents with depraved vitality to produce children who are strong and hardy. As a child may inherit the features of his parent, a peculiarity in the tone of his voice, a characteristic gait, even a peculiar control over some insignificant muscle, so can he inherit that physical condition or diathesis which renders him a suitable culture ground for the growth of the tubercle bacillus. This condition might be ignored by the insurance companies if the applicant had never been and would never be exposed to the disease germs but we know that as long as present conditions exist he is constantly exposed to the contagion, for he encounters it in the dust from the streets, in the cushions of the church, in the hangings of the sleeper, in the dust from the floors of the theatre, even in the milk that he drinks and the beef that he eats. He encounters the germs not only in this way, in common with the rest of mankind, but he has the more dangerous misfortune of passing the most critical portion of his life in close contact with his tuberculous parents. Let a person without the inherited disposition be subjected to these exposures and he would probably escape, but let some acute sickness, such as la grippe or pneumonia, enfeeble temporarily his natural resistance against the germs and they would, in all likelihood, effect an entrance and gain such a stand that it would be impossible to throw them off. It is a fact that the children of tuberculous parents are es-

pecially liable to tuberculosis, and it is this fact that leads insurance companies to reject them as unfavorable risks, whether it be due to inheritance of the disease, inheritance of diathesis, or continued and close contact with persons suffering with the disease.

Reviews and Book Notices.

The Diseases of infancy and Childhood.—For the use of Students and Practitioners of Medicine. By L. Emmett Holt, A.M., M.D. Professor of Diseases of Children in the New York Polyclinic; attending physician to the Nursery and Child's and the Babies' Hospitals, New York; etc.; etc. With two hundred and four illustrations including seven colored plates. Cloth, royal octavo; pages 1,118. D. Appleton and Company, New York. 1897.

In presenting this volume to the profession Dr. Holt has drawn very largely from his own experience extending over eleven years of continuous hospital service among young children, but the work of other pediatricists is not unnoticed. Being based so largely upon his own observation the book will be the more valuable as a practical working guide.

Undoubtedly the greatest cause of infant mortality is found in faulty nutrition and diseases of the digestive system. The author recognizing the great importance of this subject, gives to it nearly three hundred pages. The first two sections are, as is usual, devoted to a discussion of the care and development of the newly born and their diseases.

In the section on nutrition there is a most instructive discussion of the constituents of mother's milk and the influence upon it of different diseases and drugs, also of the composition of the various foods as compared with mother's milk. This chapter could be read with profit by every one who is responsible for the feeding of an infant.

Sections IV. on Diseases of the Respiratory System and V. on Diseases of the Circulatory System are well handled. Continuing the author's arrangement we find Section VI devoted to Diseases of the Uro-Genital System; Section VII. to Diseases of Blood, Lymph Nodes, Bones, etc.; Section IX. to the Spe-

cific Infectious Diseases and Section X. to Rheumatism and Diabetes Mellitus. We see no good reason for taking the chapter on Membranous Laryngitis from the Section devoted to Infectious Diseases and placing it in the section on Diseases of the Respiratory system. In fact it would be better to do away with the name Membranous Laryngitis altogether and call it what it is—Diphtheria. Then would the laity, and probably some physicians, recognizing the true nature of the disease, be more strongly impressed with the necessity for isolation and disinfection.

In the surgical tubercular diseases more attention is given to the symptomatology and diagnosis than to treatment. General lines of treatment only are suggested, the reader being referred to works on orthopædic surgery for the details of treatment and description of apparatus. In fact the discussion of questions relating to operative surgery has been omitted, these diseases having been considered only from the standpoint of the physician.

The mechanical work is well up to the usual high standard of the publishers.

Correspondence.

HISTORY OF MEDICINE AND SURGERY IN NORTH CAROLINA.

Editor North Carolina Medical Journal:

Medical history that has been in making for hundreds of years and has been but imperfectly recorded is hard for even an expert to mold accurately and to dress attractively. A novice without unstinted help from the elder brethren might then reasonably be expected to relinquish the undertaking. My researches for facts relating to the history of medicine in North Carolina have not been at all extensive, but they have been sufficient to unfold the fact that anything like a creditable article

on the subject would require years of patient toiling, and access to a better library than is at my command. In the pioneer days, when all the doctors were educated abroad and nearly all were foreign-born; there was, no doubt, much good work done. Even the Indian Medicine Man is not without a place in the medical world. He was familiar with some of the effects of concoctions from many of our indigenous roots and herbs. Some of these have been investigated and added to our *Materia Medica*. Others were cast aside as inefficient or unreliable. Valuable properties of others still, doubtless remain to reward the labors of future discoverers.

More than a hundred years ago climatologists recognized the basic facts that have more recently redounded to the fame of Southern Pines, Blowing Rock and other excellent health resorts of our State. Long ago much light was thrown on malarial fevers by such men as Manson and Howard. The method of hypodermic medication, whether originated by Dr. Edward Warren Bey or Dr. J. A. Washington in 1839, is at any rate a star in the banner of the old North State for these were both Tar-heels. From time to time much other valuable work in medicine and surgery has been done by noble sons whom our proud State may well honor. A State Society was organized as early as 1799, and kept up for a few years, but the present State Society did not come into being until April 17, 1849. There was a short-lived Board of Censors in 1800—the pioneers in the United States, probably, in such censorship—but the Board of Medical Examiners was not organized on the present basis till 1859. For more than twenty years even this was inefficient for lack of power to enforce the laws. But to-day the people of North Carolina are protected from quackery perhaps as well as those of any other State in the Union. Still there is room for improvement. An official journal was agitated about 1856, but was not published until 1858. Not till 1877 did the Legislature of the State come to the assistance of the physicians in their efforts to promote the health and prosperity of our citizens. Then the State Board of Health was created; and two years later it was invested with such powers as have enabled it to become a living and working factor for good. The county boards of health, too, assist much in advancing the hygiene

and health of our people. Our various asylums are to be heartily commended for having greatly reduced the sum of human suffering and misery. Unnatural restrictions against women have passed from our prejudices; the bars have been put down, and now several sisters grace the profession, and find a sphere open for them in our united attack upon disease and suffering. The brother in black is proud that he may now be intelligently treated by members of his own race. Individual and organized efforts are, perhaps, as active now as at any time in our history. A retrospect shows us that the medical status of the State is in some respects very far in advance of what it was even half a century ago. We have made long strides forward in antiseptic, bacteriology, pathology, serum therapy, and in penetrating lights to reveal things heretofore hopelessly hidden. But as high-toned gentlemen of broad education, tender-hearted and benevolent, holding to an unselfish and unsullied ethical standard, we can hardly claim to have kept pace with our advancement in strictly scientific matters, and yet perhaps our weakest point is in our financiering. Being absorbed in other matters and unprotected by law, we doubtless lose a larger per cent. of our just dues than any other class of laborers. Thereby, of course, we cripple ourselves and our usefulness by being unable to provide ourselves with all desirable literature and instruments. We can look back over much good work; but there is still a forest before us; much to be learned; much to be discovered; discoveries to be perfected; plenty of room for the full exercise of every brain and heart.

With united efforts for the relief of suffering and for the lengthening of life and for otherwise adding to the happiness and prosperity of our fellowman may we continue to press onward and upward in our most worthy calling. Hoping that you may yet find some one who will successfully undertake to write up a history of medicine in the Old North State, I am

Yours fraternally,

Salisbury, N. C.

J. STEVEN BROWN.

THE WEATHER BUREAU IN ITS RELATION TO MEDICAL CLIMATOLOGY.

ALBUQUERQUE, NEW MEXICO, January 20, 1897.

Editor North Carolina Medical Journal:

DEAR SIR:—A few words may not be out of place in explanation of the enclosed resolutions.

From time to time, articles have appeared in the medical press, pointing out the limitations of our knowledge of climatology and the insufficiency of data, as regards both climatic features and clinical observation, upon which to found a really scientific climato-therapy. In an article, for example, by Dr. James B. Walker, President of the American Climatological Association, appearing in the *American Journal of Medical Sciences*, January, 1897, these points are dwelt upon, and a comparison is made of the thorough study of these matters in Europe, with the somewhat rudimentary knowledge of medical climatology that has been reached in this country.

It is to be regretted that all this is, at present, true; but it is well to know that the means are at hand by which this state of affairs may be greatly improved.

At the basis of all scientific climato-therapy must lie a thorough and accurate knowledge of climatology; with this alone can we correlate our clinical observations with any hope of evolving therefrom any system of scientific treatment of disease by means of climate.

It is the belief of this Society that, in the admirable methods and appliances of the Weather Bureau, we have, already provided, the means for a well-nigh perfect determination of every climatic feature. Not only is this true, but from the fact that observers at all first-class stations have the same training, the same methods and the same apparatus, and that the element of "personal equation" is eliminated by frequent changes of observers, we are induced to believe that no foreign country is better equipped for the study of its climate.

For the above reasons, it is obvious that the meteorological records of each Western Station are strictly comparable with those of every other station, which cannot be the case where

independent and diverse methods of observation are in use at various places; and this feature of our Weather Bureau is one of vital importance to successful results.

The accompanying resolutions speak for themselves; but their object can be fully appreciated only by those who have made a study of the Statistical Tables in the Report therein referred to; and it is earnestly hoped that those who receive these resolutions may obtain from the Weather Bureau copies of Vol. 1, Signal Service Report, 1885.

It is evident that, the object of the resolutions being the adaptation of the accumulated data to the needs of the medical profession, such an end can best be reached through the joint action of a committee of medical men and the Chief of the Weather Bureau; and it would seem appropriate that such a committee be composed of members of the American Climatological Association.

To such a committee it may be apparent that certain tables might be omitted or modified and that others might with great advantage be constructed from those to be made on the lines of the existing tables.

It would be a valuable feature of the new volume if it should contain also, under the head of each station, a statistical table of the mean of all observations for the whole term of existence of each station—in other words, its local climate as deduced from all data available.

It also becomes apparent that more first-class stations are needed in order to obtain a complete knowledge of the climatology of the United States; and that special attention should be given to the study of those regions whose climatic features promise most as therapeutic agents in the treatment of disease. It is equally obvious that the value of the proposed volume would be materially enhanced by the incorporation of data regarding the geological formations, topography, natural drainage, water supply, mineral springs, etc., etc., all of which are matters of importance to be known concerning any point to which an invalid might be sent.

Finally, the volume thus made up, should be supplied at a minimum cost to the physicians of the United States, enabling them to properly estimate the value of each special region as a

therapeutic agent. The work should be revised and brought up to date every five or ten years, so that the effect, if any, of agencies supposed to be at work to modify the climatic conditions in various localities may be known and guarded against, and more especially, because the data for determination of climate becomes more reliable as the periods of observations become more extended.

To Sum Up: The object we have in view is to place within reach of the profession a work on the climatology of the United States, which will be a powerful aid to the attainment of a rational climato-therapy; this is to be based on the uniform and admirable data of the Weather Bureau, which data are nearly valueless until properly worked up and tabulated. The last compilation was made in 1885, when both the number of stations and the data were generally insufficient, but even then of great value; if it were repeated now, the accumulated data and the new stations would render it still more valuable. If more stations are established and the work brought up to date from time to time, we may ultimately attain a complete climatic record of the various portions of this country; if in addition to the tables proposed, notes concerning topography soil, water-supply, etc., should be added, the volume would be an invaluable hand-book for the physician.

Your assistance and influence in this matter is respectfully requested.

J. S. EASTERDAY,
Secretary Bernalillo County Medical Society.

Resolutions adopted by the Medical Society of Bernalillo County, New Mexico, at the meeting held January 15th 1897.

WHEREAS, This Society is impressed with a sense of the supreme value of the methods and work of the Weather Bureau of the United States, in their relation to the science of Medical Climatology, as illustrated in the series of statistical tables published in Volume I Annual Report for 1885, of the Signal Service (now Weather Bureau): said tables embracing all the data bearing upon nearly every meteorological feature necessary to a complete determination of the climate of many points scattered over the whole of the United States, so far as these data had accumulated up to the date of that Report, and

WHEREAS, The value of these tables would be greatly enhanced by working into them the data accumulated in the course of the eleven years which have elapsed since 1885, and a volume of immense value to the medical profession might be produced by appending to these tables, brought up to date, some account of the topography, geological formation, natural drainage, nature and source of water supply, vicinity of mineral springs, etc., etc., at each station where observations are taken; therefore

Be it Resolved, By the Medical Society of Bernalillo County, New Mexico, that the Chief of the Weather Bureau of the United States be respectfully requested to take this matter into consideration: that the American Climatological Association be requested to co-operate with the Weather Bureau through a committee appointed for that purpose, if mutually agreeable; that copies of these resolutions be transmitted to the Chief of the Weather Bureau, to the Surgeon-General of the Army, Navy, and Marine Hospital Service, to at least three of the principle medical journals of the United States, to the American Public Health Association and the American Medical Association, and to every State Medical Association in the United States, and their co-operation invited.

Abstracts.

THE USE OF RINGER'S FLUID—Dr. Richard E. Edes writes to the *Boston Medical and Surgical Journal* that a modification of Ringer's fluid has been in constant use in the Massachusetts General Hospital for about two years. The formula is 0.1 gramme CaCl_2 , 0.72 gramme KCl to 1,000 c. c. normal salt solution. This fluid has been used chiefly for intravenous infusion, by means of a canula, in quantities of 500 to 2,000 c.c. Some experiments of Sidney Ringer showed that calcium salts are essential to the clotting of blood. Another set consisted in passing different fluids through an isolated heart (frog's), and observing the character of the beats and the length of time the beating was sustained by such fluid. Blood serum sustains the beats well and for a long time. A solution of the albumins of the serum without salts does not sustain the beats well, nor does a simple normal salt solution. The addition of a calcium salt alone to the salt solution causes strong beats, which are, however, too

prolonged, and therefore inefficient. The addition of a small amount of potassium chloride corrects the character of the beat, and this combination, normal salt solution, *plus* calcium, *plus* potassium, will sustain heart beats as well and as long as blood serum.

The idea lay very near to supply such a fluid to the circulation in cases of extensive hemorrhage, in place of using simple salt solution, which experimentally, at least, does not sustain the heart so well. Ringer's fluid is 100 c. c. of a .75-per-cent solution of sodium chloride saturated with calcium phosphate, adding 1 c.c. of a two-per-cent. solution of potassium chloride. This is not convenient, however, for use in surgery, because the boiling necessary for sterilization precipitates a phosphate of calcium. This might possibly be evaded by sterilizing the ingredients, but it was found in the Massachusetts General Hospital more convenient to use the soluble chloride of calcium. The fluid can be made up in Florence flasks, which can be boiled and the fluid kept sterilized for accident work, and warmed for use by placing in a pail of hot water.

Dr. Edes states that several remarkable recoveries from hemorrhage and shock have occurred with, and possibly on account of, the use of this solution. He urges that it be given an extensive trial.

VAGINAL LIGATION OF THE UTERINE ARTERIES FOR UTERINE FIBROMATA.—Dr. Augustin H. Goelet, Prof. of Gynecology in the New York School of Clinical Medicine, in a paper presented to the N. Y. Obstetrical Society (Am. and Obs. Jour.) believes that this operation to be successful should be done only in carefully selected cases, and that the uterine arteries should be divided instead of simply being ligated, to secure complete obliteration of the vessels which supply the tumor with nourishment. Simple ligation is not considered sufficient where the tissues of the broad ligament are included in the ligature. When the vessel is not isolated the ligature does not always rupture the internal coat which is essential for complete obliteration. Shrinkage of the included tissues occurs from compression of the ligature which loosens and the circulation through the vessel is often restored.

The operation should be limited to interstitial growths which do not extend above the level of the umbilicus, small subperitoneal growths which spring from the uterine wall below the fundus and where extensive adhesions with adjacent organs have not formed through which the tumor may receive nourishment.

In those cases of the author, where the arteries have been divided the result has been most satisfactory; that is the hemorrhage has been permanently controlled, menstruation has become normal, the other symptoms have disappeared and the tumor has atrophied to such a degree that it could not be detected by careful bimanual examination; the uterus reducing to normal size.

The chief advantage in favor of this operation in properly selected cases may be enumerated as follows, viz;

- (1). It is devoid of risk, and the peritoneal cavity is not opened.
- (2). It is easily done.
- (3). It confines the patient to bed for two weeks only.
- (4). It relieves all symptoms produced by the tumor.
- (5). It effects marked diminution in the size of the tumor which in some instances, at least, entirely disappears.
- (6). It does not in any way interfere with a hysterectomy should it subsequently become necessary.
- (7). It does not unsex the patient.
- (8). The result is manifest within six months and the patient is not disabled nor inconvenienced by the operation.

ON HYPODERMIC INJECTIONS OF QUININE.—F. Blum (*St. Petersburg medic. Wochenschr.*,) and his confreres in Africa have administered quinine hypodermatically for the following reasons:

- (1) In a great many cases quinine is not borne by the stomach but rejected, and the patient waits for the next visit of the doctor before taking another dose, usually with the same result.
- (2) Among the lower classes there is a great prejudice against quinine, because they believe it produces an enlarged liver and a protruding abdomen. They ascribe to quinine the effects of the intermittent fever.
- (3) In children it is frequently impossible to get them to take the medicine in any form, and ointments are seldom employed long enough to cause any absorption of the quinine. The solution used consist of

℞ Muriate of quinine (balic). . . 3 grm.
 Analgen. 2 grm.
 Boiling distilled water . . . 6 grm.

The syringe holds 0.50 grm. of the solution, *i. e.*, 0.30 grm. of muriate of quinine and 0.20 grm. of analgen. This remedy was used: 1st. In cases of remittent fever in which quinine was refused by the stomach, or where the fever continued over a week, notwithstanding quinine was taken by the mouth. 2d. In repeated attacks of the fever, or in patients expecting another attack after the first one had just passed off. The doses are 1 grm. for adults, 0.50-0.70 grm. for children. In the algid form 2 grm. of ether are to be injected at the same time. In no case was more than 1.50 grm. used in one day. The results have always been good.—*Pediatrics*.

Therapeutic Hints.

RHEUMATISM.—This is recommended as an agreeable salicylate mixture:

℞.—Potasii acetatis . . . ʒ ij.
 Acidi salicylatis . . . ʒ ss.
 Syrupi limonis . . . ʒ ij.
 Aq. menth. pip . . . ʒ viij.

—*North American Practitioner*.

PHTHISIS.—Dr. Warburton Begbie gives the following as a sedative and tonic in cases of phthisis. It contains no opium.

℞—Acid. hydrocyan. dil . . 3 ss.
 Acid. nitric. dil . . . 3 iij.
 Glycerini ʒ i.
 Inf. quassiae . . q.s. ad ʒ vi.

Ft. mist. S. A tablespoonful in a wineglass of water three times a day.—*Med. Record*.

CHRONIC MALARIA.—For the cleansing of the chylopoietic system in chronic malaria do not use calomel or blue mass, but reserve their use for the acute forms of malaria. The aloin, belladonna, strychnine, and ipecac pill, cascara sagrada mixture, or one of the following will give good results:

℞—Magnesia sulph., . . . ʒ iiij;
 Ac. sulphuric diut., . . . 3 iiij;
 Ext. licorice, ... 3 j;
 Boiling water Oj.

M. Sig: Two or more teaspoonfuls with water.

℞—Podophyllin, ... gr. j;
 Leptandrin, ... gr. ij;
 Iridin, ... gr. j;
 Ext. nux. vom., . . . gr. j;
 Capsicum, ... gr. j.
 M. ft. pil. xl.

Sig: One or two three times a day.—*Kempf. American Practitioner and News.*

TUBERCULOSIS OF LUNGS:

℞—Creosoti (beechwood) . . . }
 Spiriti chloroformi . . . } aa. 8
 Alcoholis } (3 ii.)

Sig.—To use in inhaler.

The subjective symptoms of urticaria may be greatly relieved by applying the following as a lotion:

℞—Acidi carbolici 3 j-iiij;
 Acidi borici 3 iv;
 Glycerini 3 j;
 Alcoholis ʒ ij;
 Aquæ ʒ xiv.

M.—Stelwagon.—*Medical Review of Reviews.*

WHOOPING-COUGH:

℞—Tr. belladonnæ . . . gtt. xxxij.
 Acid carbol., C. P. . . gtt. viij.
 Ammon. bromid . . . ʒ ij.
 Potass. bromid . . . 3 vi.
 Aquæmenth. pip . . . 3 iii.

M. Sig.—Spray this in child's throat every two hours.

I consider whooping-cough a local nervous trouble; hence a direct application. I have used the above formula for about twenty years. It gives instantaneous relief. The same prescription also relieves hay-fever, rose cold, etc.—*DR. J. J. CALDWELLS.—Med. Review of Reviews.*

Miscellaneous Items.

Julius Fehr, M.D., aged 71, died at Hoboken, N. J., February 20.

The Missouri State Medical Association will meet in St. Louis May 18, 19 and 20.

It is said that after the discontinuance of the chloroform in producing anæsthesia, if the mask is saturated with vinegar and left in place, it will do much to prevent nausea. A tablespoonful of essence of pepsin given before the operation is also a good preventive.

At a recent meeting of the Board of Trustees of the Jefferson Medical College, Philadelphia, Dr. Chalmers DaCosta was elected Clinical Professor of Surgery. Dr. DaCosta has been connected with the College for many years, and has recently been Demonstrator of Surgery and Chief of the Out-Patient Department. The new appointment is made in recognition of his long service as a teacher and hospital surgeon and has valuable contributions to surgical literature.

Reading Notices.

ZE-AN. (N., B. & Co.)—The principal objection to the use of Corn Silk, which is a diuretic of acknowledged rare value, has lain in the fact that the dose of the ordinary pharmaceutical preparations has been too large. Nelson, Baker & Co., of Detroit, Mich., have overcome this in their Ze-An (N. B., & Co.) which is eight times the strength of the ordinary fluid extract. The pharmacological work on this preparation, conducted in the firm laboratory has demonstrated it to be a diuretic of the first order, an anodyne to the mucous membrane and a lithon-
triptic of pronounced activity.

A VALUABLE ANTIVENEREAL REMEDY.—The following taken from the *Annuaire of the Universal Medical Sciences* for 1896, will serve to some extent as an illustration of the varied uses of eucrophen in surgery and dermatology.

"Saalfeld, gives the result of two and a half years experience with euophen in the treatment of skin diseases. As a substitute for iodoform it has distinct advantages: (1) it does not smell; (2) it is not poisonous; (3) it is not irritating to inflamed skin. Ulcers of the leg, having usually a surrounding eczematous area, do badly with iodoform, which irritates the eczematous skin, whereas euophen soothes the burning and itching of the eczema and quickly allays the pain of the ulcer. It is particularly useful in the treatment of children on account of the absence of irritant and toxic properties. Intertrigo which had resisted other remedies yielded to euophen. Soft sores treated with the powder did well, and the number of secondary suppurating buboes seemed diminished by it. Mixed with calomel it proved useful also for sores, of mixed character, and definite condylomata were benefited by euophen, used as powder or as ointment. Other conditions in which it was useful were pustular eczema, folliculitis and impetigo. After superficial operations—for example removal of skin tumors, circumcisions, cauterizations, it proved a valuable substitute for iodoform.

DeBulk and Walten state that euophen is superior to iodoform in that it has a very slight agreeable odor, feeble toxicity, lightness (five times lighter): It possesses almost the antiseptic properties of iodoform, slowly frees its iodine in alkaline media, diminishes secretion and opposes diapedesis of the white corpuscles. Clinical experience has shown its antivenereal and antisyphilitic value. It keeps wounds very dry, favors the reunion of sutured wounds, and the granulation and cicatrization of open sores and cavities. The authors give twenty instances of its use. The only drawbacks noted were one case of well marked erythema and complaints from two or three patients of slight local smarting. It strongly adheres to everything it touches—a property which, if advantageous as regards wounds, may present inconvenience to instruments and the surgeons bands.

Dr. W. H. Waugh, of Chicago, recalls "the fact that the incompatibility of the iodine compounds should be recollected in prescribing euophen. Starch and the metallic salts decompose it, and, as a rule, it is advisable to administer it alone or in an oily excipient."

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Disintegrates and breaks down Urinary Calculi, both the Uric Acid and Phosphatic Formation, and other Varieties as well.

ANALYSES AND REPORT BY DR. R. OGDEN DOREMUS

Professor of Chemistry in the Bellevue Hospital Medical College, New York.

NEW YORK, December 3, 1896.

*Dr. E. C. LAIRD, Resident Physician,
Buffalo Lithia Springs, Va.*

Dear Doctor:—

I have received the five collections of **Disintegrated Calculi**, each collection containing a number of fragments, and also the three boxes, each containing a single Calculus, mentioned in your letter as discharged by different patients while under treatment by the **BUFFALO LITHIA WATER, Spring No. 2.**

I have analyzed and photographed parts of each specimen, and designated them alphabetically.

One of Calculi from collection marked "A" was $\frac{3}{16}$ of an inch in diameter, of an orange color, and on section exhibited a nucleus surrounded by nine concentric layers of a crystalline structure. On chemical analysis it was found to consist of **Uric Acid** (colored by organic substances from the urine), with traces of Ammonium Urate and Calcium Oxalate. A fragment of a broken down Calculus from the same collection was found to consist of **Uric Acid.**

One of the fragments taken at random from the collection marked "B" which was still more disintegrated than the preceding one, proved on analysis to be composed chiefly of **Uric Acid** and Ammonium Urate, with a trace of Calcium Oxalate.

The contents of the boxes marked "C" consisted chiefly of whitish Crystalline materials. On microscopic examination they exhibited well defined and prismatic crystals, characteristic of "Triple Phosphate." On chemical analysis they were found to consist of Magnesium and Ammonium Phosphate (triple phosphate), Calcium Phosphate, Calcium Carbonate a trace, Sodium and Potassium Salts in traces, Uric Acid and Urates none, Calcium Oxalate none, Organic debris in considerable quantity, and matters foreign to Calculi.

The fragments of Calculi in the collection marked "D" were numerous, and of sizes varying from small fragments to $\frac{3}{8}$ inches in length, $\frac{3}{16}$ inches in width and $\frac{1}{16}$ inches in thickness. Some of the fragments were white and others were gray in color. On chemical analysis they were found to consist partly of the variety known as "Fusible Calculus," Ammonium and Magnesium Phosphate with Calcium Phosphate also, Calcium Phosphate, Calcium Carbonate in traces, Calcium Oxalate in traces, Uric Acid in traces and Organic matter.

The Calculus in collection marked "E" were nodulated and nearly spherical in shape, consisting of Crystalline layers from $\frac{3}{16}$ to $\frac{1}{4}$ of an inch in diameter. They were of a brown color, and on analysis were found to be chiefly Uric Acid, with some Ammonium Urate and traces of Organic matter.

Yours respectfully,

Analyses F, G and H, omitted for lack of space.

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ventieth Year.

APRIL 5, 1897.

Vol. 39, No. 7.

NORTH CAROLINA MEDICAL JOURNAL.

PUBLISHED SEMI-MONTHLY AT \$2.00 PER ANNUM.

Robert D. Jewett, M.D., Editor.

[Entered at the Post-Office at Wilmington, N. C., as Second-class mail matter.]

A NEW DIGESTIVE FERMENT

Useful in all ailments arising from
faulty digestion of starch.

The profession have tried, says the THERAPEUTIC GAZETTE, to aid the digestion of starch for many years by the use of various preparations of malt, which have been largely given with little direct good as a result, for the diastatic properties of most of these preparations are so slight as to render them practically of no value as digestants, whatever may be their usefulness when acting as nutritives. Within the past few months a Japanese investigator has obtained such a valuable diastatic product that his researches deserve careful study and his results thorough trial. If, as he has apparently proved, we possess in Taka-Diastase a starch-digestant equal to or exceeding in power pepsin or pancreatin for proteids, we have made an extraordinary gain in therapeutics, for we are now able to relieve a large number of persons suffering from faulty digestion of starch, and can aid our patients during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods.

Taka-Diastase has now been under trial at the hands of the profession for nearly eighteen months, and it seems to have been proven conclusively that it is the remedy in amylaceous dyspepsia. Immediate improvement in digestion follows its administration. From 1 to 5 grains should be taken with the food or immediately thereafter; if in capsule form, at the beginning of the meal.

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UPON APPLICATION.

LAMBERT PHARMACAL CO., St. Louis.

NORTH CAROLINA MEDICAL JOURNAL.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND
SURGERY.

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WILMINGTON, APRIL 5, 1897.

No. 7.

Original Communications.

THE POSSIBILITIES OF VAGINAL SECTION IN SUR- GICAL DISEASE OF THE APPENDAGES.

BY AUGUSTIN H. GOELET, M.D., Professor of Gynecology in
the New York School of Clinical Medicine, etc.

THE prejudice against abdominal section for certain diseases of the appendages, the gravity and inconvenience of which is not commensurate with the risk which such an operation involves, no doubt deters many from undertaking it, and in consequence they are condemned to a life of chronic invalidism. Coupled with this the prolonged confinement to bed and the unsightly abdominal scar are additional objections to the operation. When the condition is of sufficient gravity and the symptoms which it induces are unendurable these considerations are of minor importance and would not stand in the way of any operation which promises permanent relief.

Vaginal section which involves so little risk, leaves no unsightly scar and does not compell prolonged confinement to bed, appeals at once to the patient as well as to the physician. Take such conditions as prolapsed, enlarged and sensitive ovaries which are incurably diseased from cystic degeneration, for instance, and non-adherent accumulations in the tubes small cysts of the ovary and small subperitoneal fibroids, conditions which are invariably progressive and nothing short of their removal will afford relief, their removal by the vagina is simple, involves little or no risk and may be undertaken with impunity by one

familiar with this class of vaginal work. The advantage of vaginal section in these cases is that it may be undertaken before the condition has assumed any gravity and the patient may be saved many years of suffering. I would not advocate radical measures where there is a chance that other means may afford relief and effect a cure. Where the condition is incurable, however, I would strongly urge early operation both for the immediate and future welfare of the patient, for in these conditions if operation is delayed the suffering is prolonged and the operation involves more risk in consequence of complications which necessarily develop.

Technique of Vaginal Section for Diseased Appendages and Small Pelvic Tumors.—The vulva is shaved and scrubbed with green soap, the vagina is scrubbed with green soap also and thoroughly irrigated with a 1 per cent. solution of lysol. The patient being placed in the exaggerated lithotomy position and the perineum being retracted with a short, broad speculum the cervix is dilated and the cavity of the uterus is thoroughly curetted, washed out and packed with iodoform or markasol gauze. (The latter is preferred because it is moderately styptic and more certainly antiseptic than iodoform). The posterior lip of the cervix is now seized with an angular tenaculum traction forceps and drawn well down to the vulva and up against the pubis. With a pair of blunt pointed curved scissors an incision through the vaginal wall is made, posterior to the cervix, through to the cellular tissue. Then with the thumb nail or the blunt end of the scissors closed the tissues are pushed back until the fold of peritoneum of Douglass' poche is disclosed. This is then opened by a few strokes of the scissors and the opening enlarged sufficiently to permit the introduction of the two fingers. The posterior severed margin of the peritoneum of Douglass' poche is then sutured to the posterior margin of the vaginal wall at the incision by means of a continuous cat-gut suture which at once controls all bleeding from the small vessels at this point which is sometimes troublesome. One or two fingers are now inserted into the peritoneal cavity, the speculum being removed to give more room and to permit the operator to reach up further. The diseased structures, (tube or ovary) are freed from adhesions by manipulation with the fingers and drawn down into the incision.

If it is only an enlarged ovary it is drawn out into the vagina the pedicle or its attachment to the broad ligament is transfixed with a double ligature of silk or cat-gut by means of an aneurism needle and tied in the usual manner. It is then cut off and the stump returned into the peritoneal cavity.

If it is a pus tube care must be exercised to prevent rupture while the adhesions are being separated. It is better if possible to remove it intact, but if it ruptures after it is down in the vagina it need not create any apprehension. The pus can drain out and escape from the vagina along the groove of the speculum and it can be washed away with a solution of bichloride so as to avoid any soiling or infection of either the wound or peritoneal cavity. When tied off and removed the stump is cauterized and returned into the peritoneal cavity.

If it is a cyst we have to deal with (and cysts of very considerable size may be removed through a vaginal incision), the adhesions, if there are any, are separated as well as possible then it is brought down to the vaginal opening against which it is held firmly by pressure from above upon the abdomen and by seizing its wall with an angular tenaculum traction forceps. It is then punctured with the scissors or knife and the fluid escapes along the groove of the speculum. As the sac collapses with the escape of the fluid it is drawn out into the vagina and other adhesions which could not before be reached are now separated, and when the pedicle is reached it is transfixed and ligated in the usual manner, the stump being returned into the peritoneal cavity.

If the intestines prolapse into the incision and obstruct the field during the operation they are pushed back and held up by inserting a small pad of sterilized gauze, with string attached for its subsequent removal.

If the operation is done for a small subperitoneal fibroid the peritoneal cavity is entered either posteriorly or anteriorly to the uterus according to its location. In entering the anterior *cul de sac* between the uterus and bladder great care should be exercised not to wound the bladder, and it is necessary to hug the uterus closely in dissecting the bladder from it. As soon as the peritoneal cavity is opened the tumor is brought into view in the vaginal incision and by means of a double V, shaped incision

with the knife or scissors deep into the uterine tissue it is enucleated. Then with a Lembert suture of fine cat-gut the wound in the uterine wall is closed, which at once controls all bleeding.

The closure of the vaginal incision will depend largely upon the necessity for subsequent drainage. When drainage is necessary a long strip of markasol gauze is packed up against the returned stump in the peritoneal cavity and its end made to protrude into the vagina which is also filled with the same gauze packed in loosely. A portion of this is removed with the vaginal gauze at the end of twenty-four hours and all is removed at the end of forty-eight hours. Then if no further drainage is necessary the vaginal wound is permitted to heal. Healing will usually take place in from six to eight days, and the patient may be permitted to get up at the end of two weeks.

The packing of the gauze against the stump besides securing drainage from the peritoneal cavity prevents adhesions of the stump to the intestines. If there is no necessity for drainage the vaginal wound is closed by means of a continuous cat-gut suture and the vagina is packed loosely with markasol gauze which is removed at the end of forty eight hours. After this the vagina may be left free and may be irrigated daily with a one per cent. solution of markasol.

The possibilities of vaginal section are greater than is supposed by the general profession and tumors of very considerable size may be removed through a small vaginal incision. I have removed simple cysts holding one or two quarts and dermoids as large as the fist, and have had the patient out of bed in two weeks. It is in fact difficult to convince them of the necessity of staying in bed after the first week since they suffer so little inconvenience from the operation and it is extremely difficult to convince them of the gravity of the operation which they have gone through, so little is the disturbance created by it. This is one thing that commends the operation, viz.; that little or no shock is produced. Often the patient does not suffer one half the inconvenience that follows an ordinary trachelorrhaphy. As one of those who at first opposed the vaginal route I am free to confess that I am, after a more mature experience, abundantly satisfied with it in certain carefully selected cases.

THERAPEUTIC APPLICATION OF CHLOROFORM IN LABOR.*

BY JOHN N. UPSHUR, M.D., Richmond, Va., Professor of Practice of Medicine in the Medical College of Virginia, President of the Richmond Academy of Medicine and Surgery, etc.

SINCE the primeval curse fell upon our race, and pain and anguish have been the invariable and dreaded accompaniment of man's entry into the world, to soothe woman's sorrows and conduct her safely through the crisis is an object worthy our highest effort, and one to be sought for with commendable devotion.

To accomplish this end, the administration of chloroform has become routine practice, and the consensus of opinion, from a very large number of obstetricians, is in favor of its safety, when thus exhibited. Careful observation for many years has tended to make me question its utility in many cases, nay, to convince me that oftentimes it *adds* to the peril and prolongs the trial.

That loyal devotion to true obstetric science demands that chloroform in labor should be exhibited just as *other therapeutic agents* in the treatment of other maladies. We forget that delivery is not a pathological process, but a physiological function; that it becomes pathological only when conditions arise convert a eutocia into dystocia, or when the physical conformation of the pelvis is such as to prevent the accomplishment of natural delivery by mechanical obstruction, from errors in the pelvic conformation, malposition of the child, or monstrosity. When labor has become pathological in character and operative interference, manual or instrumental, is demanded, with the dangers of exhaustion from prolonged agony or the addition of surgical shock, the case passes to the domain of the surgeon, so far as the *unquestioned exhibition* of chloroform is concerned, just as an anæsthetic is demanded in any surgical procedure as a

*Read before the Pan American Medical Congress; also the Richmond Academy of Medicine and Surgery, March 9, 1897.

safeguard to life. Or where the condition of the mother is such that her life is imperiled by the supervention of convulsions from existence of any of the systemic conditions which, predisposing to such complication, become active factors so soon as the stimulus of pain, or the concentration of poison to the nervous system sets in motion the morbid phenomena, which manifest themselves by an outward explosion, jeopardizing the life of the infant and of the mother.

It is not with conditions such as these that I purpose dealing, but chloroform therapeutically applied as a *causative* factor, either predisposing or active, in transforming this physiological function into a condition of some form of dystocia, making aid or interference necessary to the safe delivery of the woman.

The question, therefore, resolves itself into this problem,—in what cases should chloroform be administered; at what stage of labor; what dangers arise in consequence; at what stage do these complications arise; the best means of combatting them; and, finally, these propositions being true, *is it justifiable* to administer chloroform in natural labor *progressing with satisfactory rapidity?*

To satisfactorily deal with these queries, we must discuss the physiological action of chloroform so far as it bears upon this question. In the first stage of the *administration* of chloroform, we have its stimulant effect. The second is the stage of narcosis. In the third stage, the functions of the spinal cord are abolished, as are those of the brain—this the surgical stage; and in the fourth, we have the condition of complete paralysis—death usually by overpowering the respiratory centre first. The modes of death are from reflex irritation of the cardiac ganglia; from epileptiform syncope in the stage of stimulation; from paralysis of respiration; from paralysis of heart; and finally, from depression by the chloroform narcosis and shock. Chloroform *diminishes* the *excitability* of the *muscular system* and *its capacity for work*. If prolonged, it *exhausts muscular irritability*. It *interferes with oxidation of the blood*, and thus becomes *toxic to the fœtus*. Its stimulant action on the vaso-motor centre is doubtful.

Now, as a practical deduction from these *facts* as to the action of chloroform, let us apply them to a solution of the queries as

enunciated before. As to suitable cases for the administration, we need not consume time in discussing; every skillful and experienced obstetrician will point to those cases in which the pains are nagging and exhausting—in rigid os, in great nervousness and restlessness. I think, too, that except, as just stated, it should not be administered until the *second stage of labor is well established*, and at the *latter part* of that stage, and *withdrawn* so soon as the occiput has passed the ostium vaginae.

The most serious question is as to the dangers arising from the exhibition of chloroform in labor, and it is with this question I would deal with greatest emphasis. Note the danger from *reflex irritability*, with incomplete anæsthesia; it is at least worthy of investigation that if fatal influence from chloroform does not manifest itself here, still its effect on the heart, through the cardiac ganglia, may be potent enough to, at least predispose to hæmorrhage, or to weakened heart action during convalescence, with the condition of debility consequent upon it. But the obstetric stage is the beginning of *narcosis*; it is difficult to keep the patient at this point. Lack of appreciation of what is going on, interferes with voluntary assistance. One of its physiological effects is to diminish muscular excitability, to interfere with muscular capacity for work. Pains are consequently less potent and effective in expelling the child; there is much greater muscular tire, and the natural consequence is that when the second stage is completed, danger of hæmorrhage is much greater from incomplete condensation of the uterus, and I have often seen it occur. The uterus, is left in such condition as to make *subinvolution*, with all the *ills that follow in its train*, *almost inevitable*.

The spongy condition of the womb makes the patient much more liable to septic infection. Not only so, but often have I seen labor suspended; nor on the withdrawal of the chloroform, did the uterine pains return with desirable efficiency; evidently its effect on the uterine muscle was toxic in character, and instrumental delivery became a necessity, the agent having transformed a simple physiological process into a pathological one,—thus adding to the peril of the mother. The interference with oxidation of the blood endangers the life of the child, and I make bold to assert my belief that its use in natural labor

increases the percentage of still-births. Nor are these the most serious risks. Though few deaths have been reported from chloroform in obstetric practice, it is a question if death supervening in many cases within forty eight hours after delivery, and reported a heart-clot, etc., may not have been due to the depression from long-continued administration of chloroform, plus the shock of labor. In the cases where uterine contraction is not interfered with, and the woman holds her breath, fixing the chest-wall to more efficiently bear down, she is put in a most favorable condition for the occurrence of epileptiform syncope, when chloroform is being administered; and the retention of carbonized blood in the brain may under such condition overwhelm the nervous system. The dangers from chloroform exhibition are most likely to manifest themselves, however, at the close of the second, or during the third stage of labor' and here, post-partum, or accidental hæmorrhage, is the most important, and may be the focus from which may radiate other serious evils.

I would lay down the proposition as an axiom, that *whenever* chloroform has been administered, a full dose of ergot should be given as soon as the head is delivered or the second stage of labor completed. I have never regretted giving the ergot, and remember *no case* in which it was omitted that I did not repent of the delinquency. I would also suggest that it is safe practice to give a full dose of quinine (gr. x) at the beginning of the second stage of labor when chloroform is to be exhibited, or belladonna, or one or more doses of nitroglycerine; especially will this last tend to antidote the nausea following chloroform administration.

The hypodermic injection of atropine (gr. $\frac{1}{20}$), or sulph. strychnia (gr. $\frac{1}{60}$), will undoubtedly, add to the safety of the patient.

We must not lose sight of the fact that in obstetric use of chloroform (which is usually conceded as the safest field for the use of chloroform), the patient is *much longer* under the influence of the anæsthetic, and that the stimulus of constantly recurring uterine contractions, of a painful character, *which are supposed to antidote* the ill effects of the chloroform by constantly arousing

the patient, may be absent, or fail to exercise the stimulant effect usually a consequence of pain.

In the light of the foregoing facts, I most earnestly avow my belief that we, as physicians, should place chloroform upon the same platform as other drugs; not be influenced by our sympathies aroused by the pleadings of patients, or the fashionable routine practice of the day, but initiate and sustain a much needed reform in our obstetric work, chloroform being administered, as other agents, when the indications in the case imperatively demand it—not unless. He is a bold man who, invading the domain of nature, interferes with her physiological processes, and places the wife and mother in a position of increased peril, and perchance, the shadow of a fatal issue, or, at least, a life of invalidism and suffering, where before the home was irradiated with the effulgent rays of the sunlight of true and unalloyed happiness.

Society Reports.

RICHMOND ACADEMY OF MEDICINE AND SURGERY.

REGULAR MEETING HELD MARCH 9, 1897.

Dr. J. N. Upshur, President, in the chair, Dr. Mark W. Peyser, Secretary and Reporter.

The President read a paper on the

THERAPEUTIC APPLICATION OF CHLOROFORM IN LABOR.

[See page 221.]

DISCUSSION.

Dr. J. S. Wellford did not agree with the speaker. If women of the present day were in a condition as perfect as those of the primeval state, there would be no place for chloroform; but, as she now is, it is indicated. He never gave it till labor was far advanced in the second stage, and he got women thor-

oughly under the influence, withdrawing it until pains occur again. Ergot was administered twenty-five or thirty minutes before the time of delivery and when the effects of chloroform were passing off. There was a greater tendency to hæmorrhage and slower labor when the anæsthetic was given. He, therefore exhibited ergot in time to exert its physiological effects. Half of the mental depression was removed by chloroform, and that in itself was valuable. Take a delicate woman and subject her to the same amount of pain from other causes, and the idea is awful. There was much less difficulty in convalescence with, than without chloroform; there was not half the danger of child-bed fever, and shock was not as great. It was the exception for him not to give chloroform, unless the case was a short one.

Dr. John F. Winn thought a great deal depended on whether the chloroform was pushed to the obstetrical or the surgical degree. If the former, and given just before the pains in the second stage, he could not see how any bad results could occur.

Dr. Wm. S. Gordon remarked that as he understood it, the question was whether chloroform should be given in normal labor. In his experience, a large number of young women had prolonged, nagging pains because they had listened to the tales of friends, or had had access to medical works. In many cases, he never gave a drop of the anæsthetic, but wherever there was a truly pathological character of pain, as prolonged nagging, etc., he did administer it. When used, it was liable to cause uterine inertia and hæmorrhage, and indications for forceps were often. It was a moral question: Shall we annul the pain of normal labor?

Dr. Landon B. Edwards gathered from that portion of the paper he had arrived in time to hear that the question was whether or not chloroform should be used in *natural labor*. All admit its utility in instrumental deliveries and in most of the dystociæ. "Natural labor" is more or less a relative term. For instance, it may be over in three or four hours, or it may last twelve or fifteen hours. Again, it occurs in women of markedly different temperaments. We have seen labor progressing naturally—with proper dimensions as to mother's pelvis and child's head and body—in determined, resolute women, who had the

courage and strength to bear their pains well, and to obey the instructions of the accoucheur. Dilatation may be occurring gradually enough to permit the birth of the head and shoulders without tearing more than the fourchette or causing only an immaterial slit of the vulvar margin in its distended condition. A few such cases never ask for, nor wish, nor need chloroform. But the vast majority of women are not so resolute; many have a decidedly nervous temperament, and cannot well endure pain—they suffer inordinately as normal labor progresses. Many such persons—even during natural labor—become uncontrollable; and unless the anæsthetic is promptly and thoroughly administered, a number of dangers may threaten. So that there are cases of *natural labor* which almost imperatively demand an anæsthetic. Then, again, there are some patients who do not seem to act well under an anæsthetic—it makes them sick, or it relaxes too much uterine contractions, or otherwise too long retards labor. But such cases in his experience are also comparatively rare. So that, the question as to whether or not chloroform should be used is not to be decided by a statement that labor is progressing normally, but by a recognition of the traits or temperament of the patient in hand. It is principally a personal equation—it should not be decided until we come to the case. If the suffering is intense, and if the patient bears the chloroform well, it borders on cruelty not to let the sufferer have the benefit of anæsthesia in labor. There should never be occasion for the text at the funeral of the true physician: “I was in distress and ye comforted me not.”

A great deal is said as to the *degree of anæsthesia* in natural labor. In his earlier experience, he was often frightened off by the dictum: “Just enough to take the sharp edge of pain away.” Now, just this much may or may not be enough to make the sympathetic physician feel that he has done his duty. He has often seen “just so much” leave the reflexes in a state to excite contraction of the sphincters of the vagina, and thus resist dilatation, which was overcome by profound or surgical anæsthesia. On the other hand, he has several times seen a condition of temporary inertia of uterine action induced by such degree of anæsthesia which retarded the progress of normal labor. He knows of no way to decide beforehand which of

these two extremes of action—if either—chloroform may excite. But his experience has long since taught him that it was safe to test the matter by experiment, for in by far the majority of instances in judicious hands, chloroform will act just right in labor. In a few minutes, however, the lesson will sometimes be impressed that neither degree of anæsthesia is adapted to the case in hand, and we are thus forced to give up the further use of chloroform in these rare instances.

When chloroform acts well in normal labor, as it very generally does, he regards it a matter of importance to maintain anæsthesia until the moment of emergence of one of the shoulders; for by common agreement it is then that perineal rents are most frequent and severest. If chloroform relaxes sphincter contraction, and thus permits of greatest dilatation, it is just at this moment that anæsthesia should be most profound. As soon as the head is born, the cord slipped from around the neck, etc., if apprehension exist that the shoulders will materially tear the perineum, promptly try to deliver that one which seems easiest, while the head and then the body are brought well up on the abdomen—thus prolonging the axis of the curve of Carus. Passing two or three fingers in the vagina down to the posterior shoulder with their palmar surface pressing upon the posterior vaginal wall, promoting distension, and, at the same time, aiding extension of the perineum as the pain comes on, very decidedly prevents the dip of that shoulder behind or under the ring of muscles which appear as a cord covered by mucous membrane at the ostium vaginæ just after the head is born; and thus enables the shoulder to escape, in case of profound relaxation by chloroform, without any material rent. In fact, he does not recall when, in such cases of *normal labor under chloroform*, he has had a tear of the perineum of sufficient extent to need a stitch; although he has often to sew up split perinei after some dystociæ and nearly all instrumental labors.

In speaking of profound anæsthesia, it is scarcely necessary to say that it need not at any time be prolonged beyond a few minutes at a time. In other words, suit the amount to the condition to be met. Off and on, he has often kept patients in natural labor, under the anæsthetic five or ten minutes at a time. Sometimes he has to sprinkle cool water over the surface

of the child as it lay between the mother's thighs, to induce it to gasp, but he recalls no instance where chloroform narcosis of the child was marked enough to prevent its living after its first breath.

As to the after-effects of chloroform upon the mother, he is satisfied that they are very much overrated. The worst post-partum hæmorrhages he ever had, occurred in two ladies neither of whom had taken a whiff of chloroform. In both of these cases, the first indication of such hæmorrhage occurred fully an hour or more after delivery of the placenta. The practitioner should not assume the duties of obstetrician unless he has a patient disposition and is willing to take the time to attend to every detail of a labor case, and be within speedy call of his patient for full an hour and a half or two hours after her delivery. Proper attention to the condition of things during and after labor under chloroform had saved him thus far from post-partum hæmorrhages, subinvolutions and other accidents. He is confident that many times convulsions have been prevented by chloroform. So that an answer to the question of using an anæsthetic during normal labor resolves itself into determining whether or not the *patient in hand* can get on best, with or without it—the great majority of patients, according to the experience of the speaker, being benefitted rather than injured by circumspect use of chloroform.

Dr. Virginius W. Harrison thought that the shoulders did more injury to the perineum than the head, and he continued the use of chloroform till the shoulders were born. He gave quinine ten minutes before beginning the anæsthetic. Unless pains were severe, and there was no dilatation, he waited some time before using it, and then just sufficiently so that the exquisite pain on passing the os could not be felt. If pains mitigated, he withheld, renewing the administration as needed.

Dr. J. Allison Hodges said he ruptured nearly every perineum he attended. He asked *Dr. Edwards* to what extent he carried anæsthesia.

Dr. Edwards replied that he generally gave chloroform till the shoulders were delivered.

Dr. Hodges said that he was surprised at *Dr. Edwards'* experience, and he doubted that any other gentlemen present had th :

same, and he said it with all due deference. He himself seldom gave chloroform at the last stage when the child had been born, for he did not believe it correct. The relaxation was such that if hæmorrhage occurred, he would blame himself. That chloroform was to be given in normal labor, depended upon what we called normal labor. In some cases, he would give it, but where the woman had the courage and the fortitude to bear the pains, he would not. Using the agent just a moment before the pain, we could mitigate its severity, and then take it away. When the woman laid for an hour in a stupor, after the child was born, he thought we overstepped the rights of the patient, and used something that did not belong to use.

Dr. Harrison said he had never seen chloroform effects last an hour.

Dr. Hodges said his point was the great relaxation and the probability of post-partum hæmorrhage, unknown when the woman was in such a condition.

Dr. Welford thought that in a number of cases, chloroform hastened labor by diminishing the impediment in front in a greater degree than the lessening of the vis a-tergo.

The President in closing the discussion, said he had expected criticism of the views expressed. The various speakers had begged the question. The point he had made was, "Is chloroform justifiable in natural labor progressing with satisfactory rapidity?" Of course, he always carried chloroform to every case of labor, but used it only as he did morphine, strychnia, etc.,—when there was indication for it. He had been taught to use chloroform; but long experience and constant observation of its effects in retarding labor, had induced him to call attention to its baneful effects. He had a patient whom he had delivered a great many times. Labors without chloroform were natural and rapid, but she invariably had inertia of the womb and instrumental delivery whenever he had given her chloroform. He delivered last summer a lady of her fourth child. She gave a history of instrumental delivery in the preceding labors, which he could not understand, as she was in vigorous health, with large roomy pelvis. Enquiring of a gentleman who had twice delivered her as to what the trouble was, the reply was, uterine inertia. She had *always* taken chloroform. When labor came on, he gave

muriate of quinine, grs. x; strychnia, gr. $\frac{1}{20}$; and in three hours strong bearing down pains came on, and she was promptly delivered naturally. She had begged earnestly for chloroform, but afterwards acknowledged that she had had the best labor, and getting up sooner than ever before.

He wished to protest against the use of chloroform in *every case*, because it is a fashion and demanded by our patient, as being harmful, unless there was some special indication for its exhibition.

Selected Papers.

SOME THINGS I WAS NOT TAUGHT IN OBSTETRICS*

By E. S. ROLAND, M.D.

WAS it Horace Greely who said of a certain self-styled "se f-made man" that he relieved his Creator of a very grave responsibility? My instructors cannot be held accountable for my conclusions. Possibly a better title would be "Some Things I did not Learn in Obstetrics."

However this may be, the fact remains that I did not know them upon leaving the Medical School, and they had to be developed from experience, or the application of general principles though often from current literature and oftener still from the suggestions or hints of others.

That anything new of value can be found in this paper is doubtful. No doubt many of this audience have reached kindred conclusions; but even so, it may be wise to do what is said to be the best of preaching, namely, to tell people what they know.

The subject is so important and the amount unknown to me so great, that no attempt will be made to do other than glance

*Read before the Obstretical Section of the Suffolk District Medical Society, December 28, 1896.

at a few features which have been more or less before the profession of late. Your discussion will give value to this paper and doubtless each can contribute some important truth to fill the many gaps still left.

It is hard after twenty years of active practice to recall just what definite ideas on obstetrics were fixed in the mind on leaving the Medical School. The professor praised ergot, and had talked about and shown the forceps, but advised against taking the latter with us to a case lest we should be tempted(?) to use them.

At the same time, the gynecologists were doing their best to teach us how to cure vesico-vaginal fistula. It was not till years after that the interdependence of these two lines of teaching dawned upon us, and our respect for the Professor of Obstetrics began to wane.

Those were the days when one justified a masterly inactivity by expressed distrust for all so-called "meddlesome midwifery." Antiseptic surgery was preparing the way for later aseptic triumphs, but the application of its principles to obstetrics was not being generally or enthusiastically tried.

About this time some English medical journals described and figured an obstetrical bag with its suggested contents, and one can remember how pedantic and fussy such an article seemed. But as years went on, the bag became a fixture, and with its general adoption the practitioner found ready at hand anesthetics, well adapted instruments, antiseptic materials, needed drugs and dressings. Thus the doctor's time was saved, and what is far more to be rejoiced in, woman was relieved of much of her great primal pain and danger, so that for some years past, less has been heard of "meddlesome midwifery," and fewer women suffer from vesico-vaginal fistula, while fewer *die* from puerperal fever. The obstetrical bag then, with the training to use its well selected appliances, represents the evolution of anesthetic, aseptic midwifery of to-day.

Will you try to overlook seeming egotism while I go a little farther into personal experience, since it is that upon which my conclusions are largely based?

The use of anesthetics habitually in labor was not taught us, even when desired by the patient. If however, any good reason can be produced against such a practice, which would not be

equally applicable to general surgery, one would like to hear it, excepting, of course, in such cases of cardiac, pulmonary or renal diseases as make it inexpedient or unsafe. We believe not only in giving it when asked for, but in urging it upon the suffering patient if timid or reluctant.

Preference is given to chloroform, and whether for simply obdunting the pains or for total anesthesia in obstetric operations we urge that it is safe, easy to give, pleasant to take, rapidly recovered from, and not productive of initial excitement or subsequent vomiting. I believe that as an anesthetic in child-birth, it is practically as safe as ether. Whether this is due to physiological hypertrophy of the heart developed during pregnancy cannot be told; but except in children under eight, nowhere else is seen such immunity from its bad effects or dangers. Special skill is not required to administer it with such oversight as the operator can give during the early stage of anesthesia.

For administration, a single thickness of flannel stretched over a wire ring four inches in diameter will do, care being taken not to touch the face with this inhaler. An ounce, thus inhaled, will suffice for an average case, as total surgical anesthesia is not usually necessary except for turning or high forceps. That it causes or predisposes to hemorrhage has not been evident in my experience although I have used it during the last ten years in more than a thousand cases. Many times when the patient was getting exhausted from the pains, effort and fear, the rapid pulse has been found to go down several beats a minute, but to increase correspondingly in strength after the administration of chloroform.

As a routine practice, the heart is always examined before giving the chloroform. Under these restrictions, it is an ideal anesthetic during the latter part of the first stage and during all of the second stage of labor. During delivery of the after-birth or for suturing a perineal tear, it will seldom be necessary.

Both ether and chloroform are carried in my bag, but ether is not used once to chloroform hundreds of times. To the sceptical therefore, let me urge a few impartial trials. Justly proud of her great discovery of that great general anesthetic *ether*, Boston has not been fair to chloroform.

We were not told to do digital dilatation in tedious but otherwise normal labors where the membranes had ruptured prematurely. With the fingers sterilized this is safe and more sure than are drugs. The use of morphine subcutaneously will make it more bearable, though if the pains are severe, chloroform will be best given, just short of producing unconsciousness. The manipulation also distends the entire genital passage.

Another important thing not taught was, that when such measures have been necessary, or forceps have been resorted to the routine use of the interuterine douche ought never to be omitted, using bi-chloride 1 to 1,000, and for this purpose the fountain syringe (which must be in the indispensable bag) and the ordinary glass irrigator. These latter have the advantage of metal in that they are transparent. The small size will be found to be very convenient in irrigating after incomplete abortions. No doubt sterilization will make a blood-clot lodged in a metal irrigator innocuous, but it is not pleasant to contemplate the possibility of it.

The necessity of emptying the vagina and uterus of clots before making the final toilet of the patient was not sufficiently emphasized. This important measure ought to precede the donching.

Again, the value of the prompt suturing of perineal and other vulva tears at the completion of labor was not enjoined. It would seem, at this date, unnecessary to urge the necessity of this operation did we not know that some practitioners still treat such by denying their existence. In my experience they occur as often in natural as in artificial deliveries, though of course, they may be more extensive in the latter, especially after instrumental delivery of non-rotating occipito-posterior head. For some years I have carried the head mirror of the laryngoscope to facilitate the application of the high vaginal sutures in extensive tears. An assistant to hold the lamp is all the help that is needed. Sterilized silk sutures seem best for this purpose. For twenty-four hours after this operation catheterization is advisable sterilizing the catheter and cleansing the vestibule first.

It is not the fault of our teachers that bi-chloride of mercury was not put in our hands instead of the bulky, benumbing and uncertain carbolic acid. It is indeed a boon, yet we meet some

who have not yet appreciated their relative values. The tablets furnished for this night and morning perineal toilet ought to be strongly colored and strict rules given for their exclusively external use.

I am sure that the majority of the profession will agree with me that we are using the forceps much oftener than was thought best twenty years ago. Personally I use them much earlier in all cases seeming to need them than formerly, and with far better results both to mother and child.

It took some time to learn that a severe and protracted labor paved the way for sepsis and hemorrhage, or both, and that almost every instrumental case did well if done early. This fact has permeated the popular mind, too; and now the proposition to use forceps arouse no such dismay and objection as it once did.

I believe axis traction is secured with ordinary forceps by using one hand on the joint as a fulcrum and while less convenient the same result is thus obtained. The short forceps have been found of very great convenience; and though both short and long are always carried, the former are much oftener used.

Dismayed by a few unfortunate results in uremic cases, it now seemed best to drop the expectant plan and terminate pregnancy if severe symptoms develop before the seventh month. To delay may cost the patient her reason or eyesight, if not life itself, without giving much chance for a live baby either. After seven months, if within easy reach, and the symptoms are not too urgent, we may temporise. The same line of practice seems best in the case of hydramnios. Very bad results to the mother have been seen from non-interference, with little accruing benefit to the baby.

Little was formerly taught about the mental phases of eclampsia other than the seizure alone. These may be preceded by a period of variable length, of automatic conduct, the patient keeping up and about but in a dazed and uncertain manner. This period will be a blank to her afterward so far as any recollection of it is concerned. If one does not know how to interpret these symptoms, he is liable to be taken unawares by a terrible attack of convulsions or coma which will open his eyes to the real state of affairs with her.

Some women in labor who are not suffering from renal trouble at all, will have what are practically attacks of transient mania during the first and second stages of labor. Morphine hypodermically and chloroform anesthesia will generally give relief, as the cause is pain and dismay.

In the treatment of incomplete abortion it is evident we have not found it best to keep the teachings of two decades ago. In some way the impression prevailed that prior to the tenth week there was no placenta, and so when confronted by a case at eight or nine weeks, giving the history of a ruptured sac with the escape of an embryo, we were inclined to lull ourselves into the fond belief that the worst was over. Soon hemorrhage, pain, and possibly septic absorption with escape of membrane and placental *debris*, made it clear that a slight degree of dilatation might give egress to a small embryo and still be too small to allow the escape of the actually larger mass of secundines even if the latter were detached from the uterine wall. That the placenta may not exist as an actively vascular go between prior to the third month I cannot discuss, but as a matter of fact I do find a mass of material very like immature placental tissue after seven or eight weeks. It is the retention of *this* mass with the associated hemorrhage and probability of septic infection and absorption which renders this condition one of insidious and concealed danger. These are often the cases where for moral reasons the fact of an abortion is suppressed until it often becomes its own Nemesis.

Sometimes a frank statement makes the diagnosis easy, but oftener we have to draw our own conclusions from reluctant half-true answers. If we fail to make an examination, valuable time will be lost and the doctor will lose any reputation for acumen which he may have as well. On examination the cervix will usually be found but slightly more dilatable than usual. Firm supra-pubic pressure of one finger, will find a capacious cavity and touch the mass of membranes, placental tissue or whatever is retained.

The discharge will sometimes have the odor of moist decomposition, but too great reliance cannot be placed on this evidence, as some very septic cases will not give much odor and *vice versa*. The temperature will be up from 102° to 106°, pulse fast and

weak from preceding hemorrhage, and an account of chills sweating, etc., will be obtained.

Occasionally one of these cases will be found presenting an enlarged cervix and an everted os covered with a cauliflower-like granulation. This condition when associated with hemorrhage and fetor may throw one off his guard. Once, after having practised long enough to know better I sent such a case to Carney Hospital as a case of cancer of the cervix. Luckily for both patient and myself, she fell into the hands of Dr. Swift who relieved her of a retained and fetid placenta.

Since then I have seen another such a case, but was forearmed by my previous experience.

The history of an abortion ought to clear up the diagnosis. Whatever question may exist about the treatment of a recent non-criminal abortion, in the case of those with high temperature, chills, fetor, etc., it must be admitted that the only safe course is to empty the womb and stop further septic irritation and absorption by dilating the cervix, curetting the lining and douching with bi-chloride 1 to 1,000. The dilatation generally secures subsequent drainage so that I have not found the insertion of a gauze drain necessary. No class of cases has given me more satisfaction in the face of unpromising condition than these.

Too little stress was laid on the value of correct nursing twenty years ago. Among many of our patients this indifference is still surprising. When I found a nurse telling my patient that her hair must not be combed for thirteen days, after delivery; another that she need not fear taking cold from lying in her own urine; and half the nurses using mother's milk in the baby's eyes,—realizing that in justice to the patient it was necessary to train some needy, intelligent women for service, and give them the preference over the officious, untidy, and unreliable make-shifts whom one would otherwise have to endure. By so doing the patient is better cared for, the nurse is changed from a drudge to a pupil, and the doctor is sure of a nurse who will be loyal to him, an important matter to a young practitioner.

Right here, let me say that if the doctor's lot is cast among those too poor or too indifferent to employ reliable nurses he

must at whatever sacrifice of time or dignity, take off his coat, roll up his sleeves and attend to the indispensable details of nursing himself. Better a half-hour spent in making an unfortunate woman safe and comfortable than to wake at night and reflect on the danger and uncertain outcome of a case which might have been rendered safe.

In the treatment of puerperal fever, little was formerly advised by way of direct treatment to the utero-vaginal cavities. Curetting or inter uterine injections were regarded as unsafe or too troublesome to give; but medicine and outside application were unstinted. It was taught twenty years ago that two ounces of alcohol was as much as the system could assimilate to advantage in twenty-four hours. Of late, however, I have seen a septic case (puerperal fever) take ten times as much as that with good results.

We were warned in school that if puerperal fever occurred in our practice we must give up all new cases for a period. Acting upon this theory I once lost twenty days' work. Lately, however, while caring for a very severe case of puerperal fever in which I had to make applications, give douches and perform other services involving handling the patient, seven other cases of obstetrics were attended, three of which were instrumental, and though forced to do considerable of the nurse's work in these, too, no case showed infection. Sterilizing all the instruments by boiling, disfecting the hands and bare arms, are precautions which leave little to be feared from contagion.

For the vomiting of pregnancy, our resources were formerly limited to oxalate of cerium, etc. Later experience has taught me to place more reliance upon painting the cervix with a ten-per cent. solution of argent. nitras, or slight dilation of the os-externa in cases of such severity as call for any treatment.

The benefit to be derived from position and support by well-applied compresses and bandages in suppuration of the breasts were not taught; those were the days of poultices.

What instructions we had in extra-uterine pregnancy was not encouraging either as to diagnosis or treatment. Within the last decade so much advance has been made that we now know it to be far from uncommon, and while startling in the event of rupture it is easily recognized and very hopeful of recovery, if treated promptly by laparotomy.

I regret to say that I have not as yet mastered examination of fetal position by external palpation, nor incised laterally for rigid outlet, nor attempted the recently suggested primary operation for cervical tear, that is, suturing before leaving the chamber.

No doubt the near future will bring many innovations and improvements in our practice. Some have characterized as officious interference these measures that have proved useful to us. Parturition, they say, is a natural process which, they argue, can be left to nature. They forget that women at present are not in a state of nature.

Engleman says that Indian women have Indian babies very easily, but have hard labors when they bear half-breeds on account of the relatively larger heads of the half-white offspring.

Possibly the "new woman," with the advantage of better living, dress, athletic training and general education may need physicians less; but for the present we have to take cases as we find them; and though it is no new or easy field, opportunity is given to save lives and reduce pain.

It requires some temerity to come to this hall and voice platitudes, much more to claim merit for procedures which do not have the sanction of experts. If it were not known that within a radius of two miles from where we stand, practitioners are waiting for the extrusion of putrid placenta, and ascribing the associated rigors to cold, that scape-goat of the conservative doctor, or treating perineal tears by not looking for them a dignified silence would best become one.

Between the experts, who can wave aside as "trite" the problems that daily confront us, and the medical moss-backs who will not learn, there is still the bulk of the profession, who need the opportunity to meet and exchange the small coin of personal experience as well as to draw on those whose greater opportunities and broader views enable them to give us the latest and best teaching. To this middle class then, I hope to appeal in this paper, being wholly willing, however, to abandon my way of doing when I can learn of a better.

We can all read at home; but the placid page cannot give us the mental etching which comes from the face to face discussion.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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All communications, either of a literary or business nature, should be addressed to, and any remittances by P. O. Order, Draft or Registered Letter, made payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

THE COMING MEETING OF THE STATE SOCIETY.

The 44th annual meeting of the Medical Society of the State of North Carolina will be held in Morehead City on June 1, 2 and 3, 1897. The date is, unfortunately, the same as that selected by the American Medical Association for its semi-centennial meeting in Philadelphia. There are quite a number of the members of the State Society, doubtless, who, on account of the nearness of the place of meeting and the especially interesting features connected with it, would be glad to attend the convention of the National Association. However, the time was selected by the Society after considerable discussion, and in view of this fact the President and Secretary after conferring with the chairman of the local committee of arrangements, decided that the reasons for changing the time were not of sufficient importance to warrant their undoing the action of the Society.

We believe that the best way to avoid these clashes and to suit the convenience of the citizens of the town where the meeting will be held, would be to leave the selection of the time of meeting to the local committee of arrangements, probably requiring that it be in a certain month.

At nearly every meeting for the past dozen years, when the Society proceeded to the selection of a place of meeting, some one has suggested Morehead City. At last, we are going there—and at a season when we will enjoy to the fullest the soft ocean breezes and a dip in the salty billows. The meeting will be under the auspices of the local profession of Newbern, and we could ask no stronger assurance that we will be well treated. The Society will open the season at this famous and fashionable resort, and many guests from this and other States will be present to add to the pleasure of the occasion. The regular summer excursion rates will doubtless be allowed by the railroads and many members will be accompanied by their wives.

Less than two months intervene between this and the date of meeting, and it is time that members who intend to present essays were sending to the Secretary the titles of their papers. Each year some authors delay announcing the titles of their papers until it is too late to give them a suitable place on the program. This not only makes it difficult to prepare an attractive program, but it results in throwing out some very valuable papers. The Secretary, therefore, urges members to send in the titles of papers at once.

We hope to see a large gathering at this meeting and that the membership of the Society will be largely increased. There was never greater need for thorough and harmonious organization of the profession in the State. Let every member make an earnest effort to secure the attendance at this meeting of one of his neighbors who is not a member, and induce him to take advantage of this opportunity of associating himself with his professional brethren in their worthy endeavor to advance the standard of medicine in North Carolina, and promote the welfare of the profession. All practising physicians in the State are enjoying advantages that have come only by persevering work on the part of the Society; then let those who have taken no part in the accomplishment of this improved condition of

things, come and aid in further advance, if only by the influence of their public sanction. This can be affected by having their names placed on the roll of the Society, which is the acknowledged representative of the State profession. To all practising physicians, in good standing in the State, a cordial invitation is extended to come and take part in the proceedings of the coming meeting, and to all who do come a most hearty welcome will be given.

Reviews and Book Notices.

Inebriety, Its Source, Prevention and Cure. By Charles Follen Palmer. Cloth, Octavo 108 pages. Fleming H. Revell Co., New York. 1897.

In this little volume the author has very clearly promulgated his views on this all-important subject. He has studied the subject in its relation to heredity, diseases and injury, and morality. In the matter of treatment the most important step is with the inebriate himself, who must develop a determination to overcome the desire for drink, and this is best accomplished by his consent to confinement for a limited period. In the way of preventive treatment in those who inherit a tendency to inebriety, much will depend on the moral training and hygiene of the child. In fact the author has taken a conservative view of the subject and has advanced many useful hints that it would be well to bear in mind.

High Altitudes for Consumptives. Principles or Guides for a better selection or Classification of Consumptives Amenable to High Altitude Treatment, and to the Selection of Patients who may be more Successfully treated in the Environment to which they were accustomed previous to their Illness. By A. Edgar Tussey, M.D., Adjunct Professor of Diseases of the Chest in the Philadelphia Polyclinic, etc., etc. Cloth, octavo 144 pages; price \$1.50. P. Blakiston, Son & Co., Philadelphia. 1896.

This is a protest on the part of the author against the promiscuous sending to high altitudes of any and all patients who

may have consumption. While there are some that would be undoubtedly benefited by a high altitude, there are others whose condition would almost certainly be made worse. These cases in which a high altitude is contra-indicated are analyzed by the author who bases his opinions upon a large clinical experience in chest work, coupled with a most careful and scientific investigation of those conditions.

Abstracts.

IODOFORM-CALOMEL IN THE TREATMENT OF WOUNDS.—The results obtained in the treatment of wound-surfaces and cavities that are difficult to disinfect or from which it is difficult to eradicate completely a disease are detailed by Sprengel (*Cent. für Chir.*) who has found this combination especially efficacious in the treatment of tubercular wounds and in tracheotomies necessitated by diphtheritic membranes.

If this mixture is strewn upon a fresh wound-surface, after a short time it assumes a grayish appearance, undoubtedly due to an eschar produced by the caustic action of the drug. In a few days this will fall off and be followed by bright healthy granulations.

A chemical analysis of the compound produced shows that the action of the wound-secretions forms a biniodide of mercury from the combination, which is a very powerful antiseptic.

The action of this salt of mercury is not the same if applied by itself, as poisoning may ensue, which does not when the two drugs are combined, as the soluble salt of mercury is only produced in proportion to the secretion of the wound.

The author applies the powder by shaking a curetteful into the wound and then rubbing it thoroughly about with a hæmostat covered by a ball of gauze. A previous thorough drying of the wound is necessary, which can usually be accomplished by packing the wound with sterilized gauze and letting it remain for a few minutes. The powder is then applied and

the wound packed with gauze. The author finds that the removal of the packing is greatly facilitated by the slough which forms, as there are no adhesions of granulations to it and the patient has little or no pain when the gauze is removed three or four days later.

In tracheotomies the powder is strewn over the inner surface of the trachea, between the diseased area above and the wound and healthy tissue below. This procedure the author has found greatly hinders the spread of the disease and prevents infection of the wound. In 200 cases he has had 45 to 60 per cent. of recoveries.

The amount of powder employed varied with the case and the age of the patient. He has used a drachm of the mixture without seeing any serious results, and has employed suppositories and balls of the mixture in cocoa-butter in sinuses and cavities without seeing any harmful results.—*Amer. Jour. Med. Sciences.*

TREATMENT OF PNEUMONIA IN CHILDREN.—Buxbaum (*Blätter für klin. Hydrotherapie*) discusses the bath treatment in infantile pneumonia, both croupous and lobular. In children the great danger from pneumonia is not hyperpyrexia but heart failure; next in importance are nervous disturbances and active or passive congestion of the lungs. The condition of the right heart being all-important, the pulse must be studied no less than the temperature. Buxbaum finds the best treatment of pneumonia in children is tepid hip baths with powerful douches and rubbing not lasting more than five minutes; in special cases these may be combined with the local application of ice. Different authorities recommend various temperatures for the bath; Buxbaum obtains the best results with a temperature of 64° to 72° F. The temperature of the patient is by this means often reduced from 5° to 6°, and the vigorous friction helps to make the fall persistent, while at the same time it obviates the tendency to collapse. The circulation and respiration are markedly benefited, the action of the heart and lungs being slowed and deepened; the pulse frequency often falls 30 or 40 beats a minute. The effect upon the nervous system is even more powerful; the anxious expression, the stupor, the delirium, and the

convulsions disappear, and give place to natural and peaceful sleep. The vasomotor centre is especially stimulated, and the vasomotor paralysis resulting from the action of the pneumococcus disappears in consequence. This action is materially assisted by the cold douche to the head and neck while the patient is in the bath; it is only in very bad cases that momentary immersion in cold water (50°) followed by rubbing is required. Local bandages soaked in cold water and tightly bound, especially round the loins, are, however, almost always of service, as also is swathing the extremities in warm moist bandages after the bath. A stimulant should be given both before and after bathing. The author states that his method compares favourably with packing or simple friction, and concludes by giving an account of some remarkably successful examples of its employment.

VERATRUM VIRIDE IN UREMIC CONVULSIONS—Dr. A. F. Myers, discussing the use of veratrum viride in uremic convulsions (*Med. Review*) says: During the past five years, having satisfied myself as to the diagnosis, I have administered without delay in cases of uremic convulsions from 15 to 20 drops of Norwood's tincture of veratrum viride, hypodermically, repeating the injection with 10 or 12 drops half hourly as the condition indicated; remaining with the patient and watching the effect, trying to steady the pulse at between sixty and seventy beats per minutes. The physiologic action of the drug usually excited vomiting; this did no harm, rather added as an avenue of elimination. Having controlled the convulsion with veratrum, profuse diaphoresis was promoted by the hypodermic use of pilocarpin hydrochlorate. By the time several hours had elapsed and the veratrum was acting upon the kidneys and the bowels, free diuresis and diaphoresis were established. The stomach being irritable, diuresis was further promoted by hot poultices over the loins. A single hypodermic of veratrum occasionally did not disturb the stomach.

The advantages claimed for the veratrum over morphia are that it does not lock up the secretions and is not contraindicated in any form of renal disease. In this ailment, morphia is eliminated only by diaphoresis; veratrum, by diaphoresis, diuresis,

emesis and catharsis. Its advantages over chloral are its more rapid action and freedom from depressing the heart. Chloral is only palliative, the same is true of chloroform; veratrum is eliminative and sedative. Veratrum viride deserves a more extensive trial as an old and reliable remedy.

A CONTRIBUTION TO THE THERAPY OF GRANULAR CONJUNCTIVITIS.—V. Mardh (*Aertzliche Rundschau*, 1896, vi, 177) during an epidemic of conjunctivitis granulosa, discovered that excision of the granular portion was a rapid cure for even the severest cases. He performed this operation in 39 children under cocain of compresses wet with a 1 to 6,000 solution of corrosive sublimate. The operations—at which only a small portion is removed at each sitting—do not call for any particular technical skill so that they can be performed by every practitioner. He uses a simple fixation forceps with a firm lock, a Kuhnt's entropion forceps, a pair of small scissors bent at the joint, and a small curved pair. The operation itself is conducted as follows; One drop of a 10 per cent. solution of cocain is dropped into the eye, and as soon the conjunctiva of the bulb has become insensitive, the upper lid is everted, and fixed with the left hand. At the same time a portion of the trachomatous tissue, including no more healthy tissue than is absolutely necessary, is seized with the Kuhnt's entropion forceps. The clamped portion is now cut off with the straight scissors. It is allowed to bleed a few seconds, and then an antiseptic compress is applied. Ice applications may be ordered in case of pain. Next day the operation is repeated, and so on. With the exception of one case, there was healing by first intention, with a flat linear cicatrix. No relapses occurred although frequently a part of the tarsus was included; there was no deformity nor paralysis of the orbicularis muscle in any case.

—*Pediatrics*.

THE ABUSE OF NERVOUS STIMULANTS.—The *Therapeutic Gazette* in an editorial calls attention to the fact that both the medical profession and the laity have been accustomed to the use of alcohol as a nervous stimulant. This excessive use has hardened some to its evil effects, while others go to the opposite extreme in condemning it. There is an ever-increasing number of sub-

stitutes for alcohol thrown upon the market, such as coca, kola, etc. Many of these substitutes contain a large amount of alcohol and the consumers of them become addicted to the alcoholic habit without being aware of the fact. The temporary changes for the better which the consumer notes after a dose of his favorite remedy are usually due to the alcohol it contains. We are accustomed to consider the wide-spread use of nerve stimulants to the rush and pressure of modern life, but history shows that for many hundred years nerve stimulants have been used and abused as much as they are to-day. The abuse of these remedies by the profession is rather the result of carelessness than of ignorance. They should be used only as temporary make-shifts as in the vast majority of cases they materially increase the discomfort and ill-health of the patient. All the so-called "strengthening remedies," which enable a man to accomplish more work when he is under their influence, do this, not by adding units of force to his body, but by utilizing those units which he has already obtained and stored away as reserve forces. The result will be the same as in the case of a banker who draws upon his capital or reserve funds to supplement business. The result is in the latter case a pecuniary, and in the former a nervous bankruptcy.—*Can. Practitioner*.

INJECTION OF IODINE IN SURGICAL TUBERCULOSIS.—Campanin (*Il Policlinico*) gives several examples of the results of Durante's method of treatment in various cases of surgical tuberculosis. The author gives details of two cases of tuberculous joint disease—in one fifty-three injections, some intra-articular and some intramuscular, were given. In each case a cure was effected. In tuberculous glands, especially if unassociated with a suppurative periadenitis, the iodine injections gave good results; two cases of tuberculous peritonitis were treated with decided advantage by the same method. In addition to the above the author also practiced Durante's method in two cases of lupus and one of tuberculous orchitis and epididymitis. Time alone can prove whether relapses occur with less frequency after the iodine treatment, but as far as he has tried it the author is strongly in favor of it in suitable cases.—*British Medical Journal*.

HOW TO STOP THE INFLAMMATION FROM VACCINATION WHEN RUNNING TO EXCESS.—The *British Medical Journal* contains a communication from Clement Lucas, F. R. C. S., directing attention to the importance of preventing excessive inflammation in connection with vaccination, and describing a plan of treatment which will completely check the inflammatory process. Cases where there is much local reaction are seized upon by those opposed to vaccination and much capital is made out of them. The author directs that, in the event of the pustules tending to become confluent on the twelfth or fourteenth day and the inflammatory zone to spread with perhaps enlargement of the axillary glands and œdema of the arm, the area of the pustules should be powdered over with iodoform and a sterilized dry pad be applied to keep the powder in position and the pustules from irritation. The process is controlled in twenty-four hours. The pustules dry into a cake, the redness subsides, the glands decrease, and the œdema of the arm rapidly disappears. This treatment the author considers in every way preferable to hot fomentations or antiseptic moist application.—*Can. Practitioner*.

SCHLEICH'S FLUID IN OPERATIONS ON THE CERVIX.—The happy effect of this fluid in preventing pain in patients unable to take an anesthetic is well illustrated by Dr. S. D. West, of Philadelphia, who reports a case in the *Medical and Surgical Reporter*. By the injection of half a drachm into both the anterior and posterior lips of the cervix he secured complete local anesthesia in twenty minutes, the patient being very feeble and nervous and having absolutely refused ether. The operation was performed for the relief of symptoms caused by a severe bilateral laceration of the cervix, both lips being greatly enlarged, indurated, everted, and covered with exuberant granulations extending up to and involving the endometrium.

The chief discomfort of the operation was due to the dragging sensation caused by the tension in holding the uterus in a position necessary for the surgical treatment.

Primary union followed; the sutures were removed on the fifth day, and on the seventh day the patient was sent to the sea-shore for the season. She wrote Dr. West a few days later, saying that "she was getting along very nicely."

The freedom from pain during the operation, the ease with which the operation was performed, the absence of nausea and vomiting consequent upon the use of the anesthetic, and the prompt union of the parts, is the Doctor's apology for reporting so common, and every-day an occurrence. He says that in the future he will use more Schleich's fluid instead of ether in the repair of lacerations of the cervix.—*Medicine*.

Therapeutic Hints.

GASTRO-INTESTINAL CATARRH IN INFANTS.—Dr. Wells (*Philadelphia Polyclinic*) has found the following prescription of great use in quieting the restlessness so often seen in infants affected with subacute or chronic gastro-intestinal catarrh:

℞—Sulphonal ½ gr.
 Sodium Bromid 2 gr.
 Spirit of Peppermint . 10 drops.
 Camphor Water 1 fldr.

Mix. The dose should be repeated every two or three hours, according to indications. Occasionally, when the attack of restlessness is preceded by sour vomiting and pain 5 or 10 grains of sodium bicarbonate added to the above prescription will increase its usefulness.—*London Practitioner*.

THE TREATMENT OF BOILS.—The *Journal des praticiens* for January 23d publishes the following method for preventing the formation of boils, which is recommended by M. Albert Robin in the *Bulletin gèneral de thèrapeutique*: The patient should be given tar-water as a drink, and should take every day three capsules containing the following:

℞—Sublimed sulphur 1.5 grain;
 Pulverized camphor 0.3 “

M.

Wherever there is any redness, or there are threatening indications of the formation of a boil, the spot should be painted

with tincture of iodine, and in this way it may be arrested. When the boil has formed, the contents should be evacuated as completely as possible. When the core has been taken out, the following ointment is introduced into the wound by means of a brush:

R—Sublimed sulphur, } each . . . 150 grains;
 Pulverized camphor, }
 Glycerin a sufficient quantity.

M.

The boil is then covered with a piece of linen on which this ointment has been spread. Afterward the entire region of the eruption should be sprayed with a solution of equal parts of carbolic acid and water four times a day after the boil has been carefully washed with boric-acid water: then a dressing of the ointment is again applied.

VEHICLE FOR CASTOR OIL.—A new method of disguising the disagreeable taste of castor oil is recommended by Klein (Pharm. Central, 1896, xxxvii). Fifteen to 20 grammes (say 1-2 fl. oz.) of the oil are mixed with a glassful of milk and heated under constant stirring. In a few minutes a perfect emulsion is had, to which is then added a little syrup of orange flowers, resulting in an active preparation of an agreeable taste. Another method consists in shaking castor oil with brown beer in a bottle, or mixing the two in a jar with a rotatory motion. This is said to yield a mixture that is very agreeable to take.—*Times and Register*.

OFFICIAL LIST OF THE CHANGES OF STATION,
 AND DUTIES OF MEDICAL OFFICERS OF
 THE U. S. MARINE HOSPITAL
 SERVICE.

For the 15 days ended March 15, 1897.

Murray, R. D., surgeon granted leave of absence for one day.
 March 17, 1897.

Geddings, H. D., passed assistant surgeon, upon adjournment of Sanitary Conference at Venics, Italy, to proceed to Marseilles, France, for special temporary duty. March 10, 1867.

Wertenbaker, C. P., passed assistant surgeon, granted leave of absence for seven days from March 13, 1897.

Promotions.

Assistant Surgeons C. H. Gardner and Rupert Blue commissioned as passed assistant surgeons, March 3, 1897.

Miscellaneous Items.

Dr. C. C. Jackson has removed from Yeatesville to Plymouth N. C.

Dr. Jesse Ewell, Sr. aged 94, Prince William county, Virginia, died January 19th, 1897.

Dr. B. H. Blount, aged 65 years, died at his home near Woodville, Perquimans county, North Carolina, February 21, 1897.

Dr. W. Cobb Whitfield, of Quinerly, N. C. has recently suffered the loss by fire, of most of his effects, including his library.

Among these was his file of the Transactions of the State Society. Dr. Whitfield is very anxious to secure another set, or as many volumes as possible. Any one having duplicate copies are requested to correspond with him.

The seventh annual meeting of the Confederation of State Board of Medical Examiners will be held in the small banquet hall of the Hotel Walton, at Philadelphia, Monday, May 31, 1897, at 10 o'clock, A. M.

The object of the confederation is to consider questions pertaining to state control in medicine and to compare methods in vogue in the several states; the collection and dissemination of information relating to medical education, and to consider proposition that have for their purpose advancement of the standards in the United States. A cordial invitation is extended to all members and ex-members of state medical examining boards,

and to physicians, sanitarians and educators who are friendly to the objects named, to attend the meeting and participate in its proceedings.

A NEW RULE CONCERNING CONTAGIOUS DISEASES.—The health board has adopted a new rule regarding contagious diseases among school children. The old rule has been to exclude from school all children living on a floor where there is a case of diphtheria, measles, or other contagious disease, but this has been found to be unnecessarily stringent. It has now been decided to insist even more strongly than before upon isolation of the sick, but to forbid attendance at school of only the other children of the same family, the children of other families living on the floor being permitted to go to school as usual. It is proposed also to have the board's inspectors visit daily children ill with contagious disease.—*Med. Record.*

NEW DOCTORS.—The following are named as graduates of the Chattanooga Medical College: William Augustus Ball, Tennessee; Marion Mangus Boulton, Tennessee; George Memory Chapman, North Carolina; Clarence Augustus Cobleigh, Tennessee; Wesley Hollingsworth Crumpton, Alabama; David Landrum Delk, Georgia; Edward Walter Dickey, Tennessee; William Tilson Erwin, Tennessee; John Vernon Eaves, Georgia; Fred William Faulk, Alabama; Lunsford Dickson Fricks, Georgia; Bennett Frank Godfrey, South Carolina; William Edgar Haywood, Georgia; Marcus Conrad Hildebrand, North Carolina; Edward Harris, Alabama; Lawson Haxter Harrill, North Carolina; John Walter Hewatt, Georgia; Rezin Pritchard Johnson, Jr., Tennessee; Jeremiah M. Lindsay, Alabama; Alpha Lee Lewis, Tennessee; Irwin H. McNabb, Tennessee; Asa Pierce Martin, Alabama; Rancom Wood Meyers, North Carolina; Burk Priddy, Jr., Tennessee; Ransom Lafayette Stout, Tennessee; William Perry Stone, Tennessee; John Randolph Sherman, Alabama; Hugh Clifton Smisson, Tennessee; Boston Neander Speer, Alabama; Rufus Pledger Sullivan, Georgia; Lisle Gunn Thornton, Texas; Samuel Alexander West, Georgia; Edwin Clinton Anderson, Tennessee.

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The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that no two of them are identical, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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APRIL 20, 1897.

Vol. 39, No. 8.

NORTH CAROLINA MEDICAL JOURNAL.

PUBLISHED SEMI-MONTHLY AT \$2.00 PER ANNUM.

Robert D. Jewett, M.D., Editor.

[Entered at the Post-Office at Wilmington, N. C., as Second-class mail matter.]

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The profession have tried, says the THERAPEUTIC GAZETTE, to aid the digestion of starch for many years by the use of various preparations of malt, which have been largely given with little direct good as a result, for the diastatic properties of most of these preparations are so slight as to render them practically of no value as digestants, whatever may be their usefulness when acting as nutritives. Within the past few months a Japanese investigator has obtained such a valuable diastatic product that his researches deserve careful study and his results thorough trial. If, as he has apparently proved, we possess in Taka-Diastase a starch-digestant equal to or exceeding in power pepsin or pancreatin for proteids, we have made an extraordinary gain in therapeutics, for we are now able to relieve a large number of persons suffering from faulty digestion of starch, and can aid our patients during convalescence, so that they speedily regain their weight and strength by the ingestion of large quantities of the heretofore indigestible, but nevertheless very necessary, starchy foods.

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NORTH CAROLINA MEDICAL JOURNAL.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND
SURGERY.

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NO. 8.

Original Communications.

EXTERNAL PERINEAL URETHROTOMY WITHOUT A GUIDE.

BY H. A. ROYSTER, A.B., M.D., Raleigh, N. C.

IN all perineal operations for the radical cure of organic stricture of the male urethra, the one important question is whether or not a guide may be introduced into the bladder. If a grooved staff, a catheter, or even a filiform whale-bone bougie can be passed through the stricture, then the operation is comparatively a simple one and we call it external urethrotomy, Syme's operation, or, more specifically; external perineal urethrotomy *with* a guide. On the other hand, should the stricture be impenetrable to instruments, the operative procedure becomes one of the most difficult in surgery. External perineal urethrotomy *without* a guide, or perineal section, is rightly classed under the head of major operations. Its performance taxes the patience and skill of the surgeon, while the after-treatment is beset with many trials and uncertainties.

Moreover, judgment must be exercised in selecting the cases, in deciding between those which would be benefited or cured by operating and those which would not. Just three months ago, there was admitted to my service at the Rex Hospital an old colored man, with a stricture of twenty-five years' standing, upon whom I decided not to operate because of his general condition. His stricture would just admit a filiform; his urine

dribbled constantly, probably as much as a pint being passed in 24 hours, and it was full of albumen. The man was 70 years of age, he had a well-marked *arcus senilis*, his arteries were "hard" and his breath had a urinous odor. Treatment was symptomatic and palliative. In a few days after admission he died from uræmic poisoning. A formal operation upon his stricture would, in my opinion, simply have hastened the necessarily fatal result. Genito-urinary surgeons in our large cities constantly refuse to operate upon just such cases sent them from a distance.

It is agreed by all that renal disease of any kind contra-indicates the operation. It is indicated in all impassable strictures of the deep urethra where the patient is possessed of sufficient vigor and is not the subject of any grave constitutional malady. Some risks have to be run in these cases, however, for the operation is undertaken as a last resort. Temporary good may be gained in retention by tapping the urethra at the apex of the prostate (Cock's operation), or by aspirating the bladder. But these are in no wise curative; in neither of them is any attempt made to divide the stricture.

I append herewith the report of a case on which I recently performed perineal section with a successful result. There could scarcely be any reason for presenting the records of an isolated case of this sort, except for the fact that such operations are rarely done in North Carolina, this being, as far as I can find, the first in this immediate vicinity.

July 1st. 1896, Mr. S. S., age 50, driver of fire truck. History: Two distinct attacks of gonorrhœa, the first about 30 years before and the last 5 years ago. Since this second attack he has had a stricture which gave him little trouble until the winter of 1895; from that time it has been growing steadily worse. He has been treated by various physicians whom he consulted from time to time, but with no permanent relief. About four months ago, he *says*, he was thrown upwards from the seat of his truck, fell back on it, injuring his perineum and scrotum and was in bed two months; that the skin of these parts sloughed and for two weeks he passed urine partly through a perineal opening, which closed spontaneously, but which has since reopened at intervals. He states that there is a scar in his perineum, †he

result of this injury. The symptoms now complained of are painful, frequent and difficult micturition, the stream being at times very small and at others of normal size; dribbling of ammoniacal urine; perineal pain, especially in one spot, just at the fistulous opening. For a month or more he has been having chills at irregular times. He is a heavy, robust man, formerly addicted to alcohol.

Examination:—An irregular linear cicatrix, two and one-half inches in length, beginning in the tissues of the scrotum and ending just above the perineal centre, with a urinary fistula at its scrotal termination. On passing into the urethra a medium-sized steel sound, it was arrested in the deep portion and beyond this not even the smallest filiform could be carried after repeated trials. July 3: Attempts again made to enter stricture. Small sound made to engage partly within it, but filiform still would not pass. *Urine:* specific gravity 1012, phosphates, mucus, trace of albumen, no casts, but epithelial cells from bladder. July 6: No further advance in catheterization. Urination better. Five grains each of salol and boric acid four times daily. July 9: Called to see him while suffering from painful retention. With rest in bed and hot applications over bladder, in an hour or so, urine spurted both from the meatus and the fistula, giving him relief. July 10: Had a chill to-day; gave him 10 grs. quinine sulphate; urine trickling through perineal opening. July 11: Feels better; urine clear. Continue boric acid and salol. July 14: (at office) Passes urine fairly well, some burning afterwards; stream moderate in size and none coming from lower opening; urinated twice to-day, clear. No more headway could be made through stricture. For two weeks longer the patient went on in this way, having recurring chills, passing small quantities of urine frequently during the day and night, while no efforts were successful in getting the smallest instrument through his stricture. When operation was proposed, he eagerly gave his consent.

As preparatory treatment, the patient was given a bath, his scrotal region shaved and disinfected and a laxative administered. His urine had already been sufficiently sterilized by the salol and boric acid—a most efficient means for accomplishing this end.

Operation.—July 29, 1896, 1 p.m.: The parts were again thoroughly disinfected, the patient etherized, and one final effort made to introduce a filiform, but without success. The patient being then secured in the lithotomy position, a small grooved staff was passed into the urethra down to the face of the stricture, engaging partly within its mouth. Upon this, which was held and steadied by an assistant, an incision was made about an inch in length exactly in the median line of the perineum through all the tissues, until the urethra itself was exposed to view. The very dense cicatricial tissue through which the incision had to be made, the abnormal distortion of the urethra and the small size of its lumen, rendered it difficult to accurately distinguish the canal. However, after incising the urethra at the tip of the staff, its lips were held open by silk threads introduced on each side (Avery). The edges of the perineal incision were kept apart by retractors. It was impossible to trace the meandering urethra through the cartilaginous strictured portion into the bladder; but, carefully dissecting in the middle line for half-an-inch or more (really making a new canal), I succeeded finally in introducing a grooved director into the bladder, which fact was announced by a gush of urine. With a long, thin bistoury, the stricture was incised from behind forward. Along the groove of the director a filiform was passed into the bladder. I then carried the outer end of the filiform, along the groove in the staff, up through the urethra and out at the meatus, the vesical end of the whale-bone still remaining in position. The staff was now removed, the whole being length of the urethra traversed by the filiform, over which, as a guide, a Gouley tunneled sound was passed, to make sure the track was clear from meatus to bladder. After withdrawing the tunneled bougie and its guide, a series of steel sounds was introduced, the last one being sufficiently large to dilate the canal to its utmost and insure the complete division of any constricting bands. The wound was packed lightly with iodoform gauze and dressed with cotton and a T-bandage. The patient did not take the ether very comfortably and required a hypodermic of strychnia for slight pulse-weakness just after the operation. He rallied quickly.

The after-treatment was tedious and protracted, though the

patient went on uninterruptedly to recovery. There was no fever following the operation and very little pain. Steel sounds were introduced into the urethra on the 4th day and every alternate day thereafter. The patient underwent the usual inconveniences of having the urine discharged through a perineal opening, with repackings of gauze, bladder irrigation, etc., until the 15th day when he urinated *per viam naturalem*. For some days, he still continued to pass a few drops of urine each time through the perineal incision, which was very tardy in closing. In a month and a half he could take long walks, and by the first of November returned to his work, in which he has since been engaged. He was given strychnine and cod-liver oil, and sounds were introduced once a week for two months, then once every two weeks. During this year I have passed a sound twice for the relief of burning, tightening sensations, though there has been no interference at all with his stream of urine. At the present time he is doing hard work and seems to be perfectly healthy.

PUERPERAL CONVULSIONS.

BY H. S. LOTT, M.D., Salem, N. C.

DID you ever watch the gathering of a thunderstorm? How, through an unconscious-consciousness, we are warned of its approach by a fleeting cloud here and there in the sky, gradually coalescing into a dark and threatening mass, a sense of oppression in the atmosphere which we cannot define, evinced by a feeling of unrest in man, and even more markedly in the lower animals. Sometimes for hours, maybe for days before the culminating *explosion* in a flash of lightning and a peal of thunder. And did you ever wonder why it was, and what it was and find that the more you thought and tried to solve the problem the more you became mystified and finally rest content to trace its source to a supreme power which holds

the reins of nature's forces and directs them as it wills?

Vague theories as to possible remote causes, however valuable they may be in course of mental training to the student of medicine, are of little value to the practitioner when at the bedside of a woman during an eclamptic seizure.

This *explosion* is the culmination of a *process* or *processes* which have been in progress in the organization for weeks, months or possibly during the entire lifetime of the patient; and may be due either to *diminished* or *excessive elimination*. As to any one organ or set of organs being entirely at fault we cannot say that they are.

The poisons "*ptomaines*" and "*toxins*" are ever present in the system, just as the elements necessary for a thunderstorm are ever present in the atmosphere, both in fluids and tissues. Health means that "*waste and repair*" (Emmet) are keeping up the equilibrium from which slight donations are manifested, primarily in functional disorders, and generally with *nervous* manifestations.

Says Bouchard speaking of extrinsic forces, "You know that pathogenic influences are peripheral or central. It is in their action upon cutaneous nerve endings that cold and moisture interpose as a cause of disease." Also "it is by their direction upon nerve centers that many psychical disturbances, such as disordered affections and mental fatigue frequently bring about deteriorated health."

However, in puerperal convulsions, or as it might better be called, *puerperal toxæmia*, it is not with such external causes that we have to deal, but rather with *intrinsic* ones, due either to *faulty nutrition* or to *faulty elimination*. That we generally find the kidneys at fault is most true, but remember their important part as emunctories, doing most of the work in fact, and the only wonder is that they do their part so well; and they are quite likely no more to blame than the most remote tissue cells, which either exceed or fall short of the *health line* in their elaboration of material.

Therefore we see that little by little through either *excessive* or *deficient waste* the system prepares itself for the convulsive explosion. If the waste is excessive the nervous mechanism both peripheral and centric is *depleted*, lacking in vital elements es-

sential to healthy action and supreme control. If deficient the same centres of control are *surcharged*, and in either case the poisons which in normal proportions are harmless, gradually accumulate until they have passed the degree of tolerance, and in many cases the stage of possible repair, as is manifested by the nervous phenomena of a convulsion.

We have all noted with what almost certainty pregnancy will awaken into active life the tuberculous diathesis which may have been latent and unsuspected prior to this era in the woman's life. Likewise the same inherent tendency to convulsive seizure may be dormant until thus awakened.

There are *premonitions*, which, if it were our privilege constantly to watch, we might, in some cases, avert the explosion. Among these are *headache*, paroxysmal and chiefly supra-orbital; more or less continuous throughout pregnancy, an attack usually coming on with, or seemingly ushering in, labor, and continuing until its completion. *Impaired vision* is seldom absent, the delicate nervous mechanism of the eyes entitling them to early sympathy in all constitutional disorders. A feeling of oppression with "*boring pain*" "*in the pit of the stomach*" is an almost constant symptom, and usually immediately preceding convulsive outbreak. In a large number of cases there will be swelling of the extremities, with puffiness of the eyelids, or without these, *dull aching pain* "*in the small of the back*," and urinalysis will show, most likely, albumen or phosphates depending on the type or diathesis of the subject. The *bowels* will alternate most likely between extreme degrees of *constipation* and *laxity* while the *appetite* is most capricious. *Nausea* and *vomiting* are usually present and the cases are most favorable for a happy termination in which they are persistently so; this being the effort on the part of nature to rid the system of such *materies morbi* as would eventually surcharge the battery and result in an explosion. While this symptom is favorable it should be carefully watched and every effort made to keep it on the safe side of the *health line* by all means that will favor *nutrition*.

Any one or all of these premonitions may exist in such a degree as to force the woman to seek medical advice; when the sole effort should be to *stimulate* the *emunctories* and *keep up nutrition*. The course which promises best for this end being of your

own selection and that which is best suited to the environments of the patient.

On the other hand the entire term of gestation may be passed in such comparative comfort and freedom from distressing symptoms that the medical attendant has no warning, but is hurriedly summoned and finds the woman in the midst of the convulsion which is often the beginning of labor. It is then that we are brought face to face with the momentous question *what is the best thing to do for both mother and child?*

I will cite briefly a few cases in which I am almost sure that the foregoing group of premonitions existed. The first one was a primipara, colored, seen in consultation in the eighth month; found her in convulsions, recurring at short intervals. Gave chloroform, dilated os rapidly with fingers which required about two hours, applied forceps, and delivered twins, well developed but premature. Mother recovered.

The second a multipara, white, at full term, four miles in country. In violent convulsions when I arrived, os about like silver quarter, labor not progressing, though slight pains. Gave chloroform, did *forcible rapid dilatation* with dilator, applied forceps above superior strait and delivered living child within thirty minutes. Convulsions continued some hours after delivery. Mother had puerperal fever, but finally recovered: Child lived for about one week, and died, I believe, for want of proper care.

Third, primipara, eight months gone and eight miles in the country. In midst of convulsive seizures when I arrived, but as os was softening down nicely and labor pains fairly good I depended on the hypodermic injection of morphia and atropia, followed after an hour's interval by an enema containing thirty grains of chloral hydrate and as this controlled convulsions, I simply allowed the uterus to unload itself. The child of course did not live. The mother from the time of delivery continued having convulsions, from one to two in an hour for about thirty-six hours, but finally made good recovery.

In the fourth case, of a white multipara, the *entire group of premonitions* existed to such an alarming degree, although with *no convulsions*, that in consultation with my friend Dr. Dalton we decided to induce labor at about seven and a half months;

which was done by introducing a bougie into the uterus. Labor pains came on promptly and I delivered child and placenta with no trouble; but there was no amelioration of the alarming symptoms, the *health line had been crossed*, the *poisons had done their work*, and the woman died about twelve hours after delivery; *no convulsions occurring*.

The fifth, colored primipara, I saw in the midst of convulsive seizures; labor progressing favorably. I administered chloroform, and the child was delivered by natural forces the convulsions, however, continuing. I bled freely from the arm, but there was no reaction, and death occurred about six hours after delivery. Child lived.

Also; *the same group of premonitions*, existing to a greater or less degree, a woman may go through gestation, terminating in a perfectly *safe and normal* labor and then a convulsive explosion occur *several hours after delivery*.

Thus no routine course of *treatment* can be formulated. Inhalations of chloroform best control the convulsive explosions, at the same time staying the violent expenditure of *nervous force*, and the excessive *vis metabolica* of the tissue cells. Where it seems best to await the action of nature's forces, an enema of *chloral hydrate*, thirty grains, repeated after several hours internal if necessary, gives a more prolonged effect and is *directly antidotal* to the *existing toxins*. There are times, when a hypodermic of morphia and atropia will give most prompt and helpful results; although its use should be *avoided whenever it is possible*. Morphia *locks up the secretions* and *checks assimilation*, thus *defeating* the end we should have most prominently in view, viz, to *stimulate the emunctories* and *keep up nutrition*. Avoid the salts of potash and ammonia, *they but add fuel to the fire*, which is kindled in large part, by these salts in excess in the tissues. (Bouchard). This authority says, "We find in the urine another convulsive substance, fixed, inorganic. It is, briefly, potass; whose toxic and convulsive properties we have known for a long time." Also speaking of the destruction of blood corpuscles producing such phenomena as convulsions, etc. "Of those effects some are due to the mineral constituents, from the potass, notably, the convulsive phenomena arise." And again, "In every case there is good cause for taking into account potass in the toxic

phenomena consequent upon the retention of substances which ought to be eliminated by the urine; for the accumulation of potass may go on more rapidly than that of other substances coming from the organism." Prompt catharsis, by elaterium if the demand is urgent, or better still if there is time by frequent half grain to grain doses of calomel and soda is most beneficial.

As to the induction of premature labor, prior to the eighth month and in absence of pains indicating the co-operation of the uterus, I hold it as a *traumatism*, which should not be added to the existing *pathological conditions*.

At full term, or even before full term if *labor pains*, even though they be slight, accompany the convulsive explosion it is best to hasten the emptying of the womb. Forcible rapid dilatation of the os under the relaxing influence of chloroform anæsthesia is comparatively safe. By hastening its delivery it increases the chances of life for the child; and, by relieving the pelvis and abdomen of their burden, better enables us to *stimulate* the *emunctories*, and thus unload her system of the *poisons* which are endangering the life of the mother.

In the cases cited, two were delivered by forcible rapid dilatation and both mothers were saved. One with the fingers, which is very tedious, and without an assistant to take turns with you, is almost impossible. In the next I used an obstetrical rapid dilator, made for me by Messrs. Liemann & Co., (for full full discription of which see N. C. MED. JOUR., May 1892) and within *thirty minutes* the dilatation was done, forceps applied above the trim, and a living child delivered. Remember this too is a *traumatism*, and should only be done under conditions similar to those which would justify symphyseotomy or cæsarean section.

In normal labors a slight tear of the cervix is not infrequent. Barnes' bags, while perfectly safe, are too slow and unreliable for the emergency under consideration. Whereas. the obstetrical dilator, giving *four points* of *peripherál irritation within the circumference of the os*, and marked with figures and lines as guides to the dilating blades, enable the obstetrician to do his work with intelligence and almost mathematical precision.

Selected Papers.

THE TREATMENT OF PNEUMONIA IN CHILDREN— THE TREATMENT OF ERYSIPELAS—THE TREAT- MENT OF ACUTE BRIGHT'S DISEASE—THE NERVOUS SYMPTOMS IN PERICARDITIS— RELAPSE IN TYPHOID FEVER AND ITS CAUSE.*

BY J. C. DA COSTA, M. D.

Treatment of Pneumonia in Children.—We have before us this morning a case of croupous pneumonia developed in a girl seven years of age. She presents a rather curious history, having been discharged from this institution a week ago, just cured of an attack of catarrhal pneumonia. When she returned yesterday she had a temperature of 103° F., with the history of its having been 104° ; her right chest displayed general lack of resonance and the breath sounds over this area were feeble; the heart's action was rapid, and the urine contained a few granular casts. Her respirations were 44 to the minute, her pulse 140. On more careful examination we found by percussion absolute dulness over the infected area; but this symptom is misleading in children, for in childhood the dulness, no matter how extensive the consolidation, is never as marked as in adults. Her breathing was bronchial, if we can use this term to distinguish it from that higher-pitched breathing which is termed tubular, while at the end of expiration there existed fine crepitation, which showed us that in all probability air was again beginning to enter the air-cells. Bronchophony existed, but there was no marked difference in vocal fremitus.

The unusual fact in this case is the occurrence of another form of pneumonia following a first attack; this is unusual, especially as the first form is catarrhal, the second croupous. Catarrhal pneumonia is the common pneumonia of childhood. It is unsafe and unscientific to resort to figures in cases of this sort, but I suppose that in twenty cases of pneumonia occurring in child-

* A clinical lecture delivered at Pennsylvania Hospital,

hood there will be nineteen cases of catarrhal pneumonia to one of croupous.

In this case, as an additional feature, we find that while there is a troublesome hacking cough, there is absolutely no expectoration. The patient is delirious at night, but in fair mental state during the day.

In reference to the treatment of these cases I have found in my experience that the carbonate of ammonia in fair-sized doses is an excellent adjunct to nature. This child is seven years old; she is taking two grains of the carbonate every three hours; as her stomach seems to bear this medication well, I will order that the dose be doubled—that is, that she be given four grains every third hour. Whenever her temperature reaches 103° I ordered that she be given sponging, together with one-half drachm of whiskey just before and just after the application of water. In addition she is getting five drops of the tincture of digitalis every third hour, together with $\frac{1}{120}$ of a grain of strychnine four times a day. I have found the salts of ammonia are most beneficial and happy in their results, if given when the exudation is breaking up.

I have never used poultices in these cases, for I believe the idea on which they are based is erroneous and unscientific. I do not believe that poultices have any more effect on the exudation of the lung than if applied to the roof-tree, while if improperly applied or allowed to become damp or cold they may be actively injurious. In addition they prevent the proper examination of the chest, so that the physician is really kept in ignorance as to the exact physical condition of his patient and the progress of the disease. If poultices seem imperatively indicated in the opinion of the attending physician, they should be frequently applied by a skilful trained nurse. I will make only one reservation in reference to the use of poultices in pneumonia, when there exists pleurisy with lancinating, distressing pain.

Under these circumstances I have seen poultices properly applied, to be peculiarly happy in their results. For the same reason I see no necessity for enveloping the patient in cotton wadings or anything else that will prevent the physician from making free exploratory examination.

The Treatment of Erysipelas.—We have here a case of facial

erysipelas with marked cerebral symptoms; the face is of that peculiar, polished, livid hue so typical of these cases: the pupils are contracted; there exists stupor, and until recently there was active delirium. On admission the temperature was 105° ; now it is 101° . The urine, which is generally affected in these cases, was heavily albuminous, filled with granular tube-casts: it had a specific gravity of 1030 and was passed in bed, preventing us from measuring the amount, but to the resident physician it seemed to be about normal in quantity. The pulse rapid and feeble. Now the eyes are turned out, showing conjugate deviation, so that taken all in all this case will be one of the few which we will lose. Curiously we have had almost an epidemic of erysipelas, not occurring or originating in the hospital, but brought in from the outside; there having been no less than ten cases of this sort admitted during the last few days.

Now as to the treatment of this disease, we come to a very interesting subject. Apparently we have a case which presents all the symptoms of "brain fever," so-called, and yet never except in one autopsy in these cases have I ever been able to find sufficient inflammation in the brain or its membranes to account for this condition. On the contrary, I treat erysipelas as I would a low fever, with stimulants—with supportives. I have found the best remedy for use in these cases to be pilocarpine, quinine and strychnine, giving the strychnine, if need be, in very large doses, as much as a twentieth of a grain hourly. For the delirium I use some simple remedy, such as bromides or codeia.

It is surprising how desperately ill cases of this sort can be and yet recover. As a rule you will save your erysipelatous patients.

The Treatment of Acute Bright's Disease.—The following history is given by the patient before us: She is a full-grown woman who was admitted to the hospital a month ago, suffering from pain for four days. She saw spots before her eyes, had a cough, precordial pain, vertigo, and her feet and face were swollen. In her urine copious amounts of albumen, hyaline and epithelial cast were found, but no blood-corpuscles.

She was placed at once on a milk diet, with Rochelle salts to act as a diuretic and also on the bowels; she was also given Basham's mixture, and subsequently the lactate of strontium in

twenty-grain doses three times a day. This latter drug is a great favorite of mine in these cases; it not only acts as a diuretic, but I believe it also lessens the amount of albumen excreted by the kidneys. I can recommend it highly. In the case before us the patient has been kept in bed until now she is in a fair way to recover. The swellings and subjective symptoms have disappeared, but there still remains some casts and albumen in the urine. She is therefore kept quiet, on the same treatment, and I trust will shortly make a favorable recovery.

The Nervous Symptoms of Pericarditis.—We have a woman whom we saw a month ago; at that time she was suffering from pericarditis of sufficient severity to cause a course double pericardial friction sound which could be heard distinctly over the chest, excepting at the cardiac apex. I thought that because these sounds were so loud they would serve to hide any other sounds but I caught an obscure endocardial murmur. The woman was extremely ill and we feared at the time the most unfavorable result. However, we kept her on small doses of opium, a moderate amount of digitalis, and the use of acetate of potassium, for the triple purpose of quieting her nervous system, of steadying her heart, and stimulating her kidney, to prevent if possible any pericardial effusion. This treatment, considering the gravity of the case, has met with considerable success. During the month the pericardial murmurs gradually disappeared, until all were gone, the last lingering around the base of the heart. Then, as I had suspected, as the pericardial sounds disappear the endocardial murmur became more and more apparent. With this improvement in the local condition came improvement in the general condition; the fever disappeared until the temperature became even a little subnormal. The tongue, cleaned, the expression became good, and the lips red. The respirations fell from sixty to twenty-eight a minute.

On examination we find that the cardiac condition is typical. Percussion dulness is extended, running even to the right border of the sternum, while the impulse is felt in the sixth interspace. On listening to the sounds I find there is a distinct systolic murmur over all the cardiac region, the point of greatest intensity being at the apex. The second sound is distinctly accented at the left base of the heart, and the murmur is increased

by pressure. The precordial tenderness is gone. I should pronounce this case now as one of endocarditis with mitral roughening and general hypertrophy. The pulse is 120, regular and fairly strong, but not as strong as the cardiac impulse, showing a disproportion.

The special feature of this case which renders it peculiarly interesting is the fact that we have in it marked nervous phenomena. There has appeared during the course of the case marked disturbance of the nervous system. This patient has been restless, hysterical, has become quickly and easily excited, and has been difficult to control. For example, she has insisted on getting out of bed, but when permission has been granted the desire leaves her. In addition she has suffered from marked insomnia.

This is all interesting to us, for it has been my experience, acquired from the study of many similar cases, that we must expect these curious nervous symptoms may become so pronounced that they throw all other signs of disease into the shade. As an illustration permit me to relate my experience in a case of this character. I was called in to a case of alleged acute mania simply to decide if the patient were a suitable one to send to an insane hospital. I found the woman shrieking and sobbing and deep in the clutches of religious delusions. On examination I found that she was suffering from marked pericarditis, which was the source of her condition. Let this be a lesson to you: in cases of marked nervous symptoms, no matter what their variety, examine carefully the heart.

As to the explanation of the occurrence of these nervous symptoms in heart trouble there is much doubt and difficulty. If the symptoms were marked in endocarditis we might feel that minute embolisms had occurred in the cerebral cortex and had caused these symptoms; but these signs occur rather in pericarditis than in endocarditis. Are they due to pericardial effusion, disturbing in this way the circulation, causing cerebral anemia? This might be a good theory, but unfortunately the signs occur frequently in cases where no pericardial effusion can be found. The trouble may be sympathetic in its character; but there is, I believe, no satisfactory explanation of its occurrence. All we know is that clinically it does occur and must be met for treatment.

The remedy *par excellence* in my hands has been opium. This drug soothes the nervous system, quiets any existing cough and, relieves the general symptoms, thus being doubly valuable. In addition, in the case before us, I have ordered potassium iodide every fourth hour and together with it give ten drops of *veratrum viride*, for the heart is forceful and *digitalis* is unnecessary. I have also found in this case that chloralamid four times daily has been of great benefit; with it I have given bromide of camphor in two-grain doses for the rest and quiet superinduced. The patient is well fed and kept quietly in bed. I trust to be able to give later a still more favorable report.

Relapse in Typhoid Fever.—We have here a little girl who was admitted on January 25 with typhoid fever fully developed. Her temperature ran as high as 105°F., and the disease was fairly severe in character, excepting that no complications developed. She made a nice recovery and had a week in which she showed no fever whatsoever, but rather the subnormal tendency which follows all acute diseases, when suddenly, without warning, without known cause, in one day her temperature jumped to 102° and next day to 103°, and since then has been higher than in the original attack, reaching 105.2. It is now back to 101°. She is in the eighth day of a relapse; coincident with it, however, she has had no disturbance of bowels, but typical distention and the characteristic eruption, with the coated dry, flabby tongue.

I do not at all believe that a relapse of typhoid fever can be caused by any indiscrimination in diet, or by excitement, or by being allowed to get out of bed too soon. Do not misunderstand me in this statement. These causes are apt to bring on an elevation of temperature which may persist for a few hours or a few days, but there is in these cases no actual return of typhoid fever. A typhoid fever relapse can be due to only one cause—a reinfection due to reabsorption of poison in some way.

Possibly the inflamed Peyer's patches take up the poisons which still remains and absorb it into the system. But there are too many cases in which absolutely no cause for relapse can be found to doubt this statement. There is a broad distinction between recurring fever following indiscretions after an attack of typhoid fever, and typhoid fever relapse.

This case has been so obstreperous that we have been unable to bathe the child, and have resorted to sponging. I have placed the youngster on strict diet and have ordered two grains of the carbonate of guaiacol three times a day as an intestinal disinfectant. In addition I have been giving a new antipyretic known as apodisol, in two-grain doses. It is claimed that this drug acts as does phenacetine and antipyrin in reducing temperature, and does not cause cardiac weakness or sweating. I have dropped the sponging and have given this drug in its place. We have found that following its administration the temperature has fallen from one to two and a half degrees without affecting the patient unpleasantly. We will give this drug whenever the temperature reaches 103° . One swallow does not make a summer, nor the application of a drug to one patient a trial, but it is so satisfactory that we will continue its use. No stimulants have been given, because none are needed.—*Medicine.*

NEW YORK ACADEMY OF MEDICINE.

SECTION IN ORTHOPAEDIC SURGERY.

Meeting of March 19, 1897.

A Case of Wry-Neck.—Dr. T. H. Myers presented a girl, fifteen years of age who, in last August, after having been heated by hard playing the day before, found her head fixed in a certain position and that attempts to change the position caused pain. Three or four days subsequent she began to have pain at night in the left side of the neck posteriorly. This has been the condition till the present time. Her general health is good. There is tenderness in the left suboccipital region. At times she supports her head with her hands to relieve pain. There is no headache and no pain on jolting or jarring. There is no rigidity of the superficial muscles on either side of the neck. Flexion and extension of the head are normal. The chin is rotated to the right ten degrees and the head is inclined a little towards the left shoulder. Attempts to correct this position causes reflex spasm. The first and sixth cervical spinous process are prominent.

No prominence can be felt anteriorly on examining the throat. There is no lateral curvature. She had never had rheumatism or any other form of joint disease. Leaving out of the question the inception of the disease, almost all the features of the case were those of cervical caries and Dr. Myers intended to treat the patient for this trouble, but wished to be able to make a diagnosis between this condition and rheumatism of the neck.

Dr. S. Ketch said that it was not always possible to entirely eliminate suspicions of rheumatism in cases which it is necessary to treat as vertebral caries. In the present case he considered the reflex muscular spasm, the limitation of motion and the prominence of the vertebræ as sufficient to determine the diagnosis. He believed the trouble was in the cervical vertebræ not lower than the third but did not think it was very necessary tubercular.

Dr. R. Whitman thought the trouble was not tubercular. Although the atlas was prominent it was not enough so to have any significance, there was no infiltration and the motion is restricted in some directions but not in all. Occipito-atloid disease impaired the nodding motion and atlo-axoid disease impaired rotation. He thought it probable that the symptoms had followed strain or injury and that the continuous attitude was causing continuous pain. He would rectify the position and approved the treatment which has been proposed.

Dr. A. B. Judson said that it had sometimes been his experience to refer patients for general treatment, on the ground that the trouble was not local bone disease, and to have clear symptoms of osteitis appear at a subsequent period. The obscurity of the symptoms in osteitis of the cervical vertebræ occasionally made early diagnosis, as in the present case, far from easy. He thought that mechanical treatment was required in this case and that it was probably a case of cervical caries.

Dr. V. P. Gibney would rather suggest that this might be a case of irritable spine. He would employ active counter-irritation with fly blisters or the actual cautery and treat the patient as a neurotic. There is often an irregularity of the spinal column even when no pathological condition exists.

A Case of Hip-Disease,—*Dr. Myers* presented a boy twelve years of age. When he was seven years old he developed fever and chills and a large abscess appeared at the right hip with

oedema of the limb. An incision showed that five inches of the shaft of the femur were denuded of periosteum. Exsection was not performed and the long hip-splint had been worn till the present time. The sinuses continued to discharge and on Dec. 29, 1896 they were explored and found to proceed from cloacæ on opposite sides of the femur below the trochanter. These were enlarged and sequestra, from half an inch to an inch and a half in length, were removed. On February 3, 1897 the sinuses had closed. The affected limb was three-quarters of an inch longer than the other. There was no pain and he walked well without the splint. There was very wide motion in flexion and extension. The case showed that conservatism in regard to excising bare bone was necessary and advisable in these cases of osteomyelitis. The periosteum in this case was elevated far beyond the limit of the central necrosis and an exsection could not have secured a result as good as this.

Dr. Judson said that in its duration and results the case resembled ordinary hip-disease but a very exceptional feature was the bony lengthening, which was the more remarkable because the trochanter was far above the line.

Dr. L. W. Hubbard recalled but one case of ordinary hip-disease in which careful measurements showed absolutely no bony shortening.

Dr. Whitman recalled a case in which the patient had suffered many years from necrosis of the femur with an inch and a half of lengthening. The bone was accidentally broken and its non-union was followed by amputation.

Aneurysm Simulating Spinal Disease.—*Dr. Ketch* related a case in which the patient, a woman thirty-seven years of age, had been advised to seek mechanical treatment for spinal disease. The principal symptoms were radiating pain in the back, loss of flesh, aphonia and occasional dyspnœa. Examination revealed a pulsating tumor at the lower part of the carotid triangle and a decided aneurysmal bruit.

A Specimen of Acetabular Disease.—*Dr. Gibney* related the case of a boy five years of age, who had had symptoms of left hip disease for four months. There were marked flexion and adduction, limited motion and an abscess in the gluteal region.

After being on an inclined plane with a weight and pulley for

a month, there was no improvement and an incision was made above the trochanter and the capsule was divided. The femoral head appeared to be normal and was not removed. In the acetabulum was broken down bone and erosion, and considerable pus was present. The acetabulum was curetted, the sinuses were drained and the wound was irrigated and packed with iodoform gauze but not sutured. Pneumonia developed two days after the operation and the patient died one month later. Both lungs were found in a state of mottled red and gray hepatization with areas of atelectasis. On section no foci were found in the head or neck of the femur. The articular surface of the head had been eroded since the operation. The specimen represented an exaggerated instance of acetabular disease.

VERNEREAL DISEASE IN THE BRITISH ARMY.—It would appear to be hardly an exaggeration to say that our Army in India is rotting away through the most preventable of all diseases. The state of things is not only a grievous public scandal, but a danger, which might easily become urgent, to the existence of our Indian Empire. Official statistics show that since the abolition of the C. D. Acts the prevalence of venereal disease among our troops in India has very largely increased, till in 1895, the last year for which exact figures can as yet be obtained, the admission to hospital amounted to 536 per 1,000, and the number constantly sick was 3,164, equivalent to nearly four regiments of average strength. In addition to this, increasing numbers are invalided every month from this cause, and these cases are not tabulated under the head of venereal diseases in the official returns. It is important to bear in mind that the effects of syphilis contracted in tropical countries are far beyond anything seen here nowadays. The cases in the "Inferno" at Netley recall what one reads of in the old writers who saw the disease in its virulent epidemic form. Nor is it only in India that the scourge is extending its ravages; in the West Indies, in China, and elsewhere, the strength of the British Army is being surely, and by no means slowly, sapped by it.—*The Practitioner*.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Editorial.

THE MEDICAL HUSTLER.

The following editorial remarks from the *Medical and Surgical Reporter* are so timely and to the point that we do not deem it necessary to offer an apology for their reproduction:

“It is a serious question whether the development of modern business methods within professional life, however desirable from one standpoint, has not been accompanied by a tendency essentially degrading and liable to substitute for the extrinsic attractions of the older generations of physicians methods quite as far removed from genuine medical capability, though presenting the specious appearance of brightness and intellectual acumen. It is just as much an affectation for the old man to dye his hair and shave his gray beard, as for the young man to cultivate his whiskers and brush his scalp into a premature baldness; just as much a professional mannerism to push oneself into prominence socially, as to maintain a too dignified reserve

when the object of each mode is to secure patients. Dignity may be the wisdom of a fool, but officiousness and constant seeking for notoriety is the scintillation of an intellect of low magnitude. More genuineness of purpose, more true dignity, which is unconscious of itself, more engrossment of attention on subjects directly connected with medical art and science, and less energy in proclaiming the professional wants and resources of the physician, are the needs of the present.

‘ It is not simply an individual hardship, but a general economic mistake, that the livelihood of a man should depend on exertions beyond the field of his direct usefulness to society. We cannot expect to attain such a Utopian equalization of trade that advertising will become unnecessary, but, at least, the professions which are not composed of producers, and which are needed and justified only for certain special services to society, should be free from the element of competition, except as it consists in the practical demonstration of ability to perform one’s chosen function. The very existence of the medical hustler indicates that the balance between production and consumption of medical services has been disturbed, and the welfare, not only of the direct sufferers from this disturbance, but of society at large, demands that the equation should be restored as soon as possible, obviously not by fostering disease, but by diminishing the number of those whose existence depends on sickness and suffering.

“ One of the main outlets of the superfluous energies of the hustler is in so-called charity practice. Men who, a few years ago, scorned the idea of dispensary service, and took time to consider even a hospital appointment, now seem to have been converted to the idea that such connection is necessary to professional success, although the overgrowth of such practice, and the consequent diminution of paid services, has been repeatedly the subject of editorial warnings from all sides. If our profession is reduced to the low level which pessimists prophecy, and has become a mob of students, supported by whatever external means each may possess or obtain, subservient to lay boards of managers, and pushing and struggling for the privilege of rendering gratuitous services, for which the patient is not even grateful, there will be not a few to say that

it will serve us right for the hypocrisy which we, as a profession, have practiced, or at least connived at.

“ We have posed as philanthropists when our ‘charity’ work involved a *quid pro quo*; we have taught persons originally willing and still able to pay moderate fees, to seek gratuitous service, so that we might have greater glory, if less cash; we have begged lay assistance in putting charity practice on the highest professional basis, have represented our motives as lofty, and then have betrayed our lack of candor by scrambling after the chance of acting as the medical tools of lay generosity. Not as individuals, perhaps, but as a profession, we have done this wrong to ourselves, and we are just beginning to feel the logical consequences. The better the hospital or dispensary, the more students does the college want, the more students it gets, the more eager is it for clinical material, and the more lax does its insistence on genuine need of charity become. The more students, the more doctors; the more doctors, the less employment of each; the fewer patients, the more does the physician importune for dispensary service to occupy his time; the greater the crowding after positions at established dispensaries, the greater the tendency toward the endowment of new ones. Thus, these various factors act and react on one another in the most complicated manner, and the physician who has ambitions toward either financial or professional success, is more and more impelled toward that kind of sneak advertising which we call hustling, and which sometimes makes us blush when we compare it with the frank contempt which the quack has for ethics.

“ It is said that there is always room at the top. This modern tendency of medicine leaves room at the bottom also. There is a chance for the man who will be satisfied with a small income simply because he is incapacitated for earning more in any other employment, to support himself on emergency calls and the work which will naturally come to him after dispensary hours, or because of inconvenience or a persistence of the old independent feeling on the part of the laity. On the other hand, there is a field for a limited amount of practice at high rates, by men who can be supported for half a lifetime by extra-professional means, and who can command a sufficient influence

to secure the requisite experience and prestige in hospital and dispensary practice. But between these two breeds of hustlers, the average, wage-earning, ambitious physician, who is neither able to regard his calling as an occupation of leisure time, nor willing to accept the alternative of the other extreme, is being forced to the realization that medicine is not a satisfactory profession, however much we may love its practice. To the practitioner in a small village, it will doubtless seem that our apprehensions are groundless. To the man trying to establish a practice in New York, Boston, Philadelphia, Baltimore, or other medical centres, what we have said will appeal as a prophecy for the near future. If we have slightly exaggerated present conditions, it is only to call attention to the inevitable result of the present indifference, and to rally the profession to take a firm stand against the growing evils of medical 'charity' before such an endeavor is too late."

TIME OF MEETING CHANGED.

Before our last issue had reached our readers the demands of those who desire to attend the meeting of the American Medical Association became so urgent that the officers of the Society and the local committee of arrangements felt constrained to change the date of meeting to June 8th. This will permit those who attend the Philadelphia meeting to spend a couple of days in that city after adjournment of the Association, and then come on to the meeting of the State Society.

The officers realize that the new date may inconvenience some, but have acted to the best of their judgment. There were several reasons for making the change: the Society appointed some fifteen or twenty delegates to the A. M. A., and it would have been unfair to make them miss their own Society meeting to attend that of the national; the summer excursion rates would probably not have been allowed for the date as first arranged; the arrangements of the hotel would not have been as comfortable; and each week at this season adds to the charm of the sea-shore. Morehead will be at its best by the 8th, and

the Society will be just in time to take the wind out of the sail of the Teachers' Assembly, which will follow close in our wake on the 15th. There will be room for all at the Atlantic Hotel, and members will not have to sleep seven in a room and bathe from a tin basin on a nail keg, as was recently the case in a city with "ample hotel accommodations."

Come, doctor, and bring your lady to help you enjoy the soft-shell crabs and the toothsome pig-fish, the ocean breezes and moonlight sails. We look for a large gathering and a jolly one—(Riddick will be there with some new yarns, if he survives the Philadelphia meeting.)

Reviews and Book Notices.

The Retrospect of Practical Medicine and Surgery, being a Half-Yearly Journal, containing a retrospective view of every discovery and practical improvement in the medical sciences. Edited by James Braithwaite, M.D., Lond., Obstetric Physician and Surgeon to the Leeds General Infirmary, etc.; assisted by E. F. Trevelyan, M.D., Lond., M.R.C.P., assistant Physician to the Leeds General Infirmary, etc: Vol. cxiv. January, 1897. Uniform American Edition. Cloth; 435 pages; price \$1.50. G. P. Putnam's Sons, New York, 1897.

The first 128 pages contain a very conveniently arranged series of abstracts from the medical journals of this and other countries. They are arranged alphabetically according to the diseases treated of, and are taken *verbatim* from the journals.

The latter portion of the volume is taken up with original abstracts from articles which contain new ideas and important facts.

The work being issued every six months and confining itself generally to the new discoveries and practical improvements in the various branches of medicine, will keep the reader well up to the times.

Charaka-Samhita Translated into English. Published by Avinash Chandra Kaviratna, Calcutta, India.

This fasciculus, the sixteenth, contains an interesting variety.

It contains the observations of the Rishi upon the vitiation of the air, water, etc., a reference to the first origin of disease, and other items of interest.

Lesson IV. discusses the means of ascertaining disease, viz: (a) Instructions of the inspired or wise; (b) Observation; and (c) Inference. It says: "Verily, with the aid of all these three means of knowledge, one should in the first instance fully examine a disease. The diagnosis that is then arrived at becomes faultless."

Lesson V. treats of the various "ducts" of the body, which "same, in consequence of their exceedingly large number, some say are uncountable." Again "there are ducts for bearing life-breaths, water, food-juice, blood, flesh, adeps, bones, marrow, vital seed, urine, stools and sweat."

This part is fully up to the preceding parts in general interest and in showing the ideas held and taught by the ancients. They certainly did not believe in homeopathic doctrines, as witness their idea of treatment: "After the same manner, of diseases of other kinds, the medicines to be prescribed should be of virtues contrary to their causes."

Abstracts.

A METHOD OF UNTYING THE KNOTS OF SILK LIGATURES.—At a recent meeting of the New York Obstetrical Society, Grad (*American Gynecological and Obstetrical Journal*, February, 1897, p. 105) described an ingenious method of untying the knots of silk ligatures, especially after hysterectomy. For this purpose a ligature proper is required with one end knotted for ready identification, together with a number of so-called traction-strings. The latter are made of pieces of braided silk, preferably No. 13, about twenty inches long, the two ends of which are tied together. These are designated 1, 2, 3, etc., and are distinguished by a corresponding number of knots. Thus, when the operator is ready to fasten his ligature, he slips over the knotted end, let us say, traction-string No. 3, and ties over

this with the ligature a single or double knot, as he prefers. Then traction-string No. 2 is slipped over the knotted end of the ligature and a second knot is tied. For additional security a third knot may be tied in the ligature, traction-string No. 1 being slipped over the knotted end of the ligature. The knotted end of the ligature is now cut short and the three traction-strings, with the remaining long end of the ligature, are tied together with a piece of fine silk. At the completion of the operation the separate bundles of traction-strings and ligatures are brought down into the vagina and they serve to facilitate drainage. The same process is repeated in turn with each ligature. If the traction-strings have been properly applied, their subsequent removal and that of the ligature can be easily effected. The patient is placed in the lithotomy position, the bundles of traction-strings and ligatures are pulled out of the vagina, each bundle is separated from its fellows and the thread binding the selected bundle is cut, thus releasing the traction-strings and the long end of the ligature. Traction-string No. 1 is now picked up, and slow but steady traction is made on one-half of it until it is felt to move out of its position. After making this forward and backward motion two or three times, the traction-string suddenly comes away and the first knot (the last one tied) is untied. The same manœuvres are repeated with the other traction-strings. All the knots are now untied and the ligature alone remains. A slight pull will suffice for the removal of this. Each bundle of ligatures and traction-strings is treated in the same way until all are removed. An aseptic douche follows, and the patient is returned to her original position in bed without having suffered material discomfort.—*Jrl. Am. Med. Asso.*

THE TREATMENT OF ASCITES BY INJECTIONS OF OXYGEN INTO THE PERITONEUM.—At a meeting of the Lyons Société Nationale de Médecine, M. Teisser (*New York Medical Journal*) related the case of a woman who came under his care for ascites with generalized edema. He treated her according to M. Potain's method of abdominal puncture, followed by injections of oxygen into the peritoneum. At the first puncture about fourteen pints were withdrawn, but no amelioration occurred, as the liquid collected

again in six days. A second puncture was then made and followed by the injection of 1300 cubic centimeters of oxygen. The operation was very well borne, and did not provoke pain or local reaction; there was also complete absence of fever during the following days. The abdominal circumference diminished from 128 to 102 centimeters, and the edema of the lower limbs disappeared very rapidly. The oxygen was easily absorbed by the peritoneum. For several days there was some gurgling, but this disappeared at the end of eight or ten days. At the time of writing the abdomen still measured 102 centimeters, and sonorousness existed everywhere, even in the iliac fossa when the patient lay on her side. She was able to get up every day and walk in the open air. These results were obtained in three weeks.—*Medicine.*

TREATMENT OF NEPHRITIS IN CHILDREN.— (*Henry E Tuley, Mèd. News*) Few diseases of childhood require more prompt, vigorous, intelligent, and careful treatment. Three essential rules in the treatment must be recognized, viz.: (a) Relieve the kidneys of the extra work of carrying the transuded serum from the tissues, as well as the retained products of tissue metamorphosis usually excreted by the kidney and retained because of their damaged state; (b) endeavor, by intelligent medication and diet, to prevent further damage to the diseased organs: (c) restore the kidney to its normal condition.

In meeting the first indication, resort must be had to the compensatory emunctories, the skin and bowels, and at no age can we rely upon them more than during early life. Calomel is indispensable. It stimulates the liver to action, and by the increased flow of bile, the contents of the bowel are rendered more fluid and the elements to be excreted more soluble in the blood, thus proving less irritating to the kidneys. The salines are of great service as hydragogues.

Hot-air baths must be relied upon for their diaphoretic action as pilocarpine is very uncertain and not to be depended upon.

The best method of applying heat is by using an apparatus which will supply hot-air under the bedclothes. This can be used continuously, as it does not cause prostration. Liquid ammonia acetatis is an efficient remedy in the stage of convalescence act-

ing beneficially upon the kidneys and the skin. The high tension in the arteries can be combated more efficiently by blood-letting than otherwise, its beneficial effect being seen upon the pulse, the nervous system, and the kidneys, by lowering the blood pressure.

A very valuable agent is water, given, perhaps, plain after filtration or boiling, as young children take carbonated waters with reluctance. Given *ad libitum* and at regular intervals, if the patient does not call for it, it acts as a diuretic, without causing any irritation. If refused by the mouth, it acts well as an enema if large doses are given.—*Archives of Pediatrics*.

PUERPERAL FEVER IN PRIVATE PRACTICE.—Dr. Charles J. Cullingworth (*Brit. Med. Jour.*) in an address on the undiminished mortality from Puerperal Fever, and especially as it applies to private practice, says: It was not to be expected that those who had already been engaged for some time in practice would at once assimilate the new ideas and adopt what appeared to many of them not only new but revolutionary and unnecessary methods. But as time wore on and a younger race of men came upon the scene it was not unnaturally hoped that an improvement would take place, that a mortality which had been conclusively shown to be preventable would show some signs of diminution. How is it that this hope has not been realised? Either the profession is not convinced of the possibility of stamping out puerperal fever by the methods that have been proposed, or it has failed to carry out those methods with the thoroughness that can alone ensure success. As a responsible teacher of midwifery, I have often asked myself the question how far the teaching is at fault. Do we teachers sufficiently impress upon the minds of our students the infinite importance of this subject? Are we ourselves careful to show by our own example the importance of the precautions that we lay down in the lecture theatre? Are we careful never to convey by thoughtless word or careless act the impression that the rigid adoption of antiseptic measures is excellent in theory but does not after all matter so much in practice? If we are not, is it to be wondered at that when our students go out into the world and are released from the discipline of the school and hospital they should forget how much depends

on attention to minute detail, and should discharge their consciences in this matter of antiseptics by pouring a few drops of carbolic acid or a drachm of tincture of iodine into the water in which they wash their hands, or by simply bidding the nurse administer a similarly prepared solution as a douche? I am not painting an imaginary picture. The methods at present employed by many who, if questioned, would be quite ready to proclaim their belief in antiseptics, and who assure one they have used "every antiseptic precaution," are often so crude and imperfect as to be a ludicrous travesty of genuine antiseptic midwifery.

The questions I have just been asking, I ask of myself as well as others. It is clear that something is wrong. We shall be most likely to find out what that something is by a process of self-examination, both on the part of teacher and taught however disagreeable that process may be. A great deal has been written on the superiority of asepsis as compared with antiseptics and it has become the fashion in some quarters to speak of antiseptics as though they had had their day, and to maintain that a condition of asepsis can be attained by cleanliness alone. It is well, however, to bear in mind that the triumphs of our lying-in hospitals have all been won by the scrupulous use of antiseptics, and that sterilisation, which is the essential element in aseptic surgery, is impossible in midwifery practice. When we have thoroughly washed our hands, as we all now recognise the necessity of doing before making an examination in the lying-in room, it costs very little trouble to adopt the additional safeguard of immersing them for a moment or two in an antiseptic solution. And as a matter of experience those who are most diligent in the use of antiseptics are also the most diligent in carrying out all the details of elementary cleanliness. I firmly believe that if the simple antiseptic precautions with which everyone is familiar were conscientiously adopted, puerperal fever would be as rare in private practice as it is now in the best lying-in hospitals. "The only way," as I have elsewhere observed, "to avoid (the present) terrible mortality, and to avoid also the terrible amount of puerperal disease, which, because it is not fatal, is apt to remain unrecorded, is for every practitioner in midwifery to recognise his personal responsibility in the matter."

Therapeutic Hints.

FISSURED NIPPLES.—As a prophylactic measure Lepage recommends that the nipples should be regularly washed with the following solution: Mercuric iodide, 2 to 4 grains; spirits of wine, $1\frac{1}{2}$ ounce; glycerol and distilled water, each 1 pint. If, after using this for a few days, the ulceration disappears, a solution of boric acid may be substituted. Aristol is also highly recommended by Vinay in an ointment containing 1 drachm to 5 of vaseline. Joise has observed that cocaine, when applied to cracked nipples, has the power of diminishing the milk secretion, and from this fact he was led to the use of this agent when he desired to complete suppression of milk. He applies a 5 per cent. solution in equal parts of glycerine and water five or six times daily to the nipples. Suppression of the milk is observed in from two to six days. By producing anæsthesia of the nipple, cocaine prevents its erection, and thus favors the decrease in the quantity of milk.—*The Practitioner*.

FOR OBSTINATE VOMITING.—The following is often useful for the relief of obstinate vomiting:

Rectified spirit, 3 ijss.

Mehthol, 3 j.

Tincture of nux vomica, 3 ss.

M. Ten drops to be taken every hour in a teaspoonful of chloroform water.—*The Practitioner*.

FOR DYSENTERY.—

R.—Quin, sulph . . . 0.12

Pulv. rad. ipecac . . 0.30

Ammon. chlorat . . 0.60

Tinct. opii . . gtt. xij.

Aquæ dest . . . 30.0

M. S. One teaspoonful every four hours.—*Med. Record—Therap. d. Gegenwart*.

PURULENT CONJUNCTIVITIS.—In a previous communication Dr. de Schweinitz called attention to the value of copious irri-

gations of *potassium permanganate*, 1-2000, in the treatment of *purulent (gonorrheal) conjunctivitis*. Subsequent experience has confirmed his good opinion of this drug. At least a pint of the solution should be passed through the conjunctival cul-de-sac in a gentle stream, preferably by means of an irrigator, four or five times a day, according to the indications. Formic aldehyde, 1-5000, which has achieved a just reputation in the treatment of various types of purulent conjunctivitis, has the disadvantage of causing severe smarting. In some recent cases of conjunctivitis neonatorum the drug has been employed in a strength of 1-6000, with happy results, although it is not impossible that the faithfulness with which the solution was used may have contributed as much to the result as any antiseptic property which it has—a property which in a strength of 1-6000 must be exceedingly feeble.—*Phil. Polyclinic*.

COLORLESS IODINE OINTMENT.—

R.—Iodi . . . gr. xx.
 Potass. iodid. gr. iv.
 Sodii sulph . gr. xl.
 Aquæ . . . q.s.

Rub the chemicals with the water until the solution becomes colorless. Then add:

Adipis benzoati $\frac{3}{4}$ i.

M.

Med. Record—Atlanta Clinic.

FOR CROUP.—

R.—Tinct. tolu . . . $\frac{3}{4}$ iss.
 Syr. scillæ . . . 3 ij.
 Tinct. opii camph . . 3 iiij.
 Glycerinii . . . $\frac{3}{4}$ iss.
 Aquæ . . . q.s. ad $\frac{3}{4}$ vj.

M. Sig. A half-teaspoonful to be given every three hours during the day, and every four hours during the night.

Dr. A. O. Stimpson, in the *Medical and Surgical Reporter*, recommends this treatment during the intervals, the spasms to be relieved by spraying the mucous membrane of the throat with a two per cent. solution of cocain, and enveloping the throat in a cloth wet with a solution of a tablespoonful of ground mustard to a quart of hot water.

OFFICIAL LIST OF THE CHANGES OF STATION,
AND DUTIES OF COMMISSIONED OFFICERS
OF THE UNITED STATES MARINE
HOSPITAL SERVICE.

For the 16 days ended March 31, 1897 :

Banks, C. E., surgeon, detailed as inspector of Marine Hospitals and Marine Hospital stations, March 9, 1897.

Brooks, S. D., passed assistant surgeon, to proceed from Port Townsend, Wash., to principal ports of Japan and China on special duty, March 30, 1897.

Geddings, H. D., passed assistant surgeon, to proceed from Marseilles to Paris, France, on special duty, March 22, 1897.

Stimpson, W. G., passed assistant surgeon, to assume charge of Marine Hospital at Port Townsend, Wash., in addition to quarantine station, during absence of passed assistant surgeon S. D. Brooks, March 31, 1897.

Nydegger, J. A., passed assistant surgeon, relieved from duty in Hygienic Laboratory April 2, and upon expiration of leave of absence to rejoin his station at South Atlantic Quarantine, March 29, 1897.

Wicke's H. W., assistant surgeon, to proceed from New Orleans, La., to Boston, Mass., for duty, March 27, 1897.

Greene, J. B., assistant surgeon, when relieved from duty at Baltimore, Md., to proceed to Detroit, Mich., for duty, March 31, 1897.

Clark, Taliaferro, assistant surgeon, to proceed to Chicago, Ill., for duty, March 27, 1897.

Hastings, Hill, assistant surgeon, to proceed to New Orleans, La., for duty, March 27, 1897.

Lavinder, C. H., assistant surgeon, to proceed to New York, N. Y., for duty, March 27, 1897.

Appointments :

Taliaferro Clark, of the District of Columbia; Hill Hastings, of Kentucky; and Claude H. Lavinder, of Va., commissioned as assistant surgeons, March 25, 1897.

ARMY.

- From March 18, 1897, to March 31, 1897:

Captain Julian M. Cabell, assistant surgeon, having been found by an Army retiring board incapacitated for active service on account of disability incident to the service, is by direction of the President retired from active service, this date, March 29, 1897. He will proceed to his home.

Captain Charles Willcox, assistant surgeon, is relieved from duty at West Point, N. Y., to take effect upon the expiration

of his present leave of absence, and ordered to Fort Bliss, Texas, for duty at that post, relieving Captain Ogden Rafferty, assistant surgeon. Captain Rafferty, on being thus relieved, is ordered to Willets Point, New York, for duty at that post.

1st Lieutenants Isaac P. Ware, Robert S. Woodson and Geo. D. De Shon, assistant surgeons, are ordered to report in person to Lieut. Col. David L. Huntington, deputy surgeon general, president of examining board, at such time as they may be required, for examination for promotion.

NAVY.

For the week ending April 10, 1897:

April 3.—Surgeon C. H. Gravatt, when finished with examination for promotion April 5, detached from the Museum of Hygiene, ordered home and then hold himself in readiness for sea.

April 4.—Passed assistant surgeon J. A. Guthrie, detached from the "Katahdin" and ordered to the "Alliance."

Assistant surgeon J. F. Leys, detached from the "Alliance" on relief and ordered to the "Vermont."

April 8.—Medical Director T. N. Penrose, detached from the "New York" Hospital June 5 and placed on waiting orders.

Medical Director G. W. Woods, detached from the Mare Island Hospital May 10 and ordered to the New York Hospital June 5.

Medical Inspector G. P. Bradley, ordered to the Mare Island Hospital May 10.

April 9.—Passed assistant surgeon E. P. Stone, detached from the "Indiana" April 12 and ordered to the "Bennington."

Miscellaneous Items.

"The Columbus Medical Journal" has removed from 150 East Broad St., to its new quarters 68 Buttles Ave., Columbus, Ohio.

The College of Physicians and Surgeons, of Chicago, has recently become the Medical School of the University of Illinois.

We are in receipt of a letter from Mrs. Mary E. Wicker, Wicker, N. C., setting forth the advantages of that locality for the practice of medicine. Information may be had from the above address.

THE TAX ON OPTICIANS.—It turns out that, after all, the Legislature will not have laid to its charge so salutary a law as the taxing of itinerant opticians. This bill was introduced in the House as a substitute for the section taxing practising physicians ten dollars a year. It passed the House, but went to the table in the Senate.

SOUTH CAROLINA MEDICAL COLLEGE.—The commencement exercises of this College were held on the first of April, and twenty-five graduates received the degree of Doctor of Medicine. The report of the Dean shows the College to be in a prosperous condition, and keeping in the front rank in the way of modern improvements and facilities for the instruction of her students. The following named gentlemen received the M.D. degree: E. M. Brailsford, J. L. Bell, R. H. Bryson, D. E. Conner, L. B. Clarke, H. W. DeSaussure, Jr., T. H. Ellis, W. D. Ferguson, A. T. Gaillard, Henry Horlbeck, H. P. Jackson, J. W. Jervey, M. K. Mazyck, C. R. May, R. W. Montgomery, C. R. Peeples, T. M. Scharloock, R. C. Stoney, W. G. Stevens, J. W. Wessinger, H. H. Wyman, William Weston, H. A. Willis, Douglas Hamer, W. P. Webb. The last two named are from North Carolina, the remainder from South Carolina, except Dr. J. L. Bell, who is from Arkansas.

Professor E. A. Alderman, President of the University of North Carolina, delivered the address to the graduating class, and we take pleasure in quoting from a private letter received from Dr. Parker, the Dean of the College, the following very complimentary criticism of Dr. Alderman's address: "Except to a few gentlemen, he was an entire stranger here, but we gave him the largest and most select audience that this city can afford. He returns home with a reputation (made in an hour) as a writer of the purest English, the most elegant diction, an original thinker, a wonderful facility for grouping divers branches bearing upon his subject, touching upon them lightly but clearly, and weaving their bearings upon the central subject in the most charming and interesting manner. His delivery was equally attractive, partaking, I should say, rather of the style of the lecturer than of the orator. He captivated his large audience from the beginning to the end of his address,

and commanded the attention of the learned and distinguished gentlemen sitting near him on the stage, as well as that of the brilliant array of ladies and gentlemen who composed the general audience."

Reading Notices.

SANMETTO IN BRIGHT'S DISEASE.—I have been using Sanmetto in my practice for two years or more, and am nearly always well pleased with its effects. Have had splendid success with it in Bright's disease, sometimes using it alone and at other times in connection with digitalis.

Shell, Ala.

H. Green, M.D.

I have prescribed Bromidia with pronounced success in several cases of Nervousness and Restlessness, and in one case of Acute Cystitis. I have combined Papine with Bromidia which gave instant relief. Parenthetically, I may say I have personally used a teaspoonful of Bromidia, after having successively lost several nights' rest with no bad after-effects.

Philad., Pa., Feb. 23, 1897.

Chas. E. Quetil, M.D.

WALKER GREEN PHARMACEUTICAL CO.:

I am using your Elixir Six Bromides and Elixir Six Iodides, and find them to be very palatable and efficient preparations for obtaining the physiological effects of those remedies and in all clinical uses of the same, as far as I have applied them. Some thirty Epileptics are at present under treatment in this Institution.

D. S. Moore, M.D.,

Superintendent North Dakota Hospital for the
Insane, Jamestown, N. Dakota.

ZE-AN (N. B. & Co.)—The favor with which this preparation is being received at the hands of the profession would indicate that it is a very valuable addition to the *materia medica*. It is, we take it, not improper to speak of it as an "addition," notwithstanding the fact that Corn Silk has long been known for its anodyne diuretic properties. The preparation of the drug, the ordinary fluid extract, has, however, been found inconvenient because of the bulk necessary to secure marked action. ZE-AN (N. B. & Co.) is a highly concentrated preparation, being eight times the strength of the ordinary fluid extract. A fluidrachm is, therefore, a full dose, and the quantity is not so large as to prove burdensome to the stomach. The clinical reports of its efficacy in nephritis, cystitis and urethritis are certainly very convincing.

BUFFALO LITHIA WATER

Disintegrates and breaks down Urinary Calculi, both the Uric Acid and Phosphatic Formation, and other Varieties as well.

ANALYSES AND REPORT BY DR. R. OGDEN DOREMUS

Professor of Chemistry in the Bellevue Hospital Medical College, New York.

NEW YORK, December 3, 1896.

*Dr. E. C. LAIRD, Resident Physician,
Buffalo Lithia Springs, Va.*

Dear Doctor :—

I have received the five collections of **Disintegrated Calculi**, each collection containing a number of fragments, and also the three boxes, each containing a single Calculus, mentioned in your letter as discharged by different patients while under treatment by the **BUFFALO LITHIA WATER, Spring No. 2.**

I have analyzed and photographed parts of each specimen, and designated them alphabetically.

One of Calculi from collection marked "A" was $\frac{1}{16}$ of an inch in diameter, of an orange color, and on section exhibited a nucleus surrounded by nine concentric layers of a crystalline structure. On chemical analysis it was found to consist of **Uric Acid** (colored by organic substances from the urine), with traces of Ammonium Urate and Calcium Oxalate. A fragment of a broken down Calculus from the same collection was found to consist of **Uric Acid.**

One of the fragments taken at random from the collection marked "B" which was still more disintegrated than the preceding one, proved on analysis to be composed chiefly of **Uric Acid** and Ammonium Urate, with a trace of Calcium Oxalate.

The contents of the boxes marked "C" consisted chiefly of whitish Crystalline materials. On microscopic examination they exhibited well defined and prismatic crystals, characteristic of "Triple Phosphate." On chemical analysis they were found to consist of Magnesium and Ammonium Phosphate (triple phosphate), Calcium Phosphate, Calcium Carbonate a trace, Sodium and Potassium Salts in traces, Uric Acid and Urates none, Calcium Oxalate none, Organic debris in considerable quantity, and matters foreign to Calculi.

The fragments of Calculi in the collection marked "D" were numerous, and of sizes varying from small fragments to $\frac{3}{16}$ inches in length, $\frac{1}{16}$ inches in width and $\frac{1}{16}$ inches in thickness. Some of the fragments were white and others were gray in color. On chemical analysis they were found to consist partly of the variety known as "Fusible Calculus," Ammonium and Magnesium Phosphate with Calcium Phosphate also, Calcium Phosphate, Calcium Carbonate in traces, Calcium Oxalate in traces, Uric Acid in traces and Organic matter.

The Calculus in collection marked "E" were nodulated and nearly spherical in shape, consisting of Crystalline layers from $\frac{3}{16}$ to $\frac{1}{4}$ of an inch in diameter. They were of a brown color, and on analysis were found to be chiefly Uric Acid, with some Ammonium Urate and traces of Organic matter.

Yours respectfully,

R. OGDEN DOREMUS.

Analyses F, G and H, omitted for lack of space.

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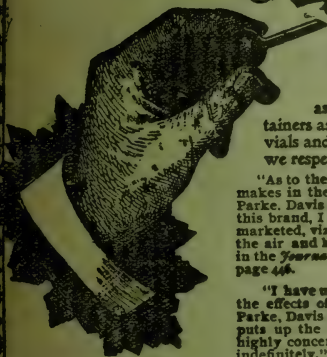
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Original Communications.

REPORT OF A PECULIAR CASE.*

By JOSEPH M. MATHEWS, M.D., Professor of Surgery and Clinical Lecturer on Diseases of the Rectum in the Kentucky School of Medicine, etc., Louisville, Kentucky.

SEVERAL months ago there came to me from a Southern State a very distinguished educator accompanied by his wife. He had an ordinary case of internal hemorrhoids. I operated upon him under chloroform, observing the strictest antiseptic precautions, etc., as I usually do. The method used was the ligature. I saw him every day for several days and dressed the parts myself. After the expiration of two weeks these cases usually leave the Infirmary, but this patient being rather a delicate man going East for a vacation, concluded to remain a little longer than that, although I could have pronounced him ready to leave at the end of two weeks. There was no discharge from the rectum, except perhaps a little from the granulating material. He was up walking around.

I then left the case in the hands of my assistant, Dr. Laws, who washed the parts every day or every other day for a few days, after which his wife simply sponged the anus daily, which was all that was necessary. At the expiration of another week, which would make the third week, they took the train for an

*Reported to the Louisville, Ky., Surgical Society.

Eastern resort. On the train the wife complained of intense pain in her eye. In a few hours the eye was swollen enormously, and they said as large as a small orange. When they reached their destination, which was less than eight hours after the pain was noticed, the gentleman sent for a physician, and the physician told him that it was of such importance and character that he should send or telegraph immediately to Pittsburg for an oculist. There was great pain and great swelling of the parts. The oculist answered the summons from Pittsburg, and told him it was a very serious condition, and in questioning them about the history was told that the gentleman had been operated upon for hemorrhoids about three weeks before. The oculist said then that this woman, his wife, must have gotten some of the discharge, pus from the rectum, in her eye, and that the eye should be immediately taken out, and advised her, I suppose because he did not have any of the necessary instruments with him, to go to Philadelphia. They hurried to Philadelphia, and in the Jefferson College Hospital had a consultation with another oculist, and the gentleman writes me that this oculist also agreed that it must have been pus from the rectum which had destroyed the eye, and they immediately chloroformed the woman and removed the eye-ball; they said the other eye was in great danger, therefore the affected eye must come out, and the gentleman stated in his letter that they thought, under careful treatment, they could save the other one.

I wrote to the gentleman that I did not believe the statement, in the first place, there was no discharge from this man's rectum. After a lapse of three weeks there is none. In the second place, granting that there had been any amount of pus from the rectum, it could not have affected the eye. I cannot conceive that had there been pus—more than that—had some of this pus gotten into the woman's eye, that it would have destroyed the ball. There is not in any surgical work on diseases of the rectum extant an intimation that any such result would occur. There is not in any surgery that is published in this country or in Great Britain a single intimation that any such result could occur. There is not in any medical book that was ever written any direction that the hands of the assistants should be washed, presuming, of course, that they would wash

them, as far as that is concerned, after dressing a surgical wound, but I mean, of course, looking to the point that it would destroy the eyesight.

I believe the solution of the affair is, that the woman, on the car enroute to the Eastern resort, in the use of a towel, perhaps, infected her eye with gonorrheal pus. Now, I do not know what investigation was made, microscopically or otherwise, but I cannot understand why, on the train coming up in an hour or two, this violent inflammation should manifest itself, when she did not handle the part as far as dressing it but two or three times, and that was simply to use a little water for the sake of cleanliness.

Of course the patient regrets that his wife did not wash her hands, and what I want to know is this: Is it possible for such a thing to occur? I know a great deal has been said about the colon bacillus, etc., but never in all my experience have I had anything like this to occur, but to the contrary have had my hands covered with pus, and have undoubtedly wiped my eyes with pus on my hands; I do not believe this is the correct solution. This is my individual opinion; it may or may not be true, and I would like to know what could have produced the loss of this woman's eye.

DISCUSSION.

Dr. J. M. Ray: All of us who practice ophthalmology encounter every once in a while cases of violent inflammation of the conjunctiva, which it seems this was, that goes on to destruction of the eye, where we are unable to locate the source of infection. We have all encountered such cases in the female, and I am always careful to have a vaginal examination made. Writers on purulent ophthalmia and various books on eye diseases name a number of sources of infection—I do not believe experiments have proven that so-called laudable pus placed in contact with the conjunctival membrane does produce typical purulent ophthalmia. The fact remains that we do encounter cases of purulent ophthalmia in which we are unable to find the so-called gonococcus of Neisser. I have had a number of such cases and in the last few months have seen a case of intense

purulent conjunctival inflammation in a young girl eight years of age, in which, on vaginal examination, it was found that there was a very profuse vaginal discharge. Of course, we could not get any history from the child as to whether there had been gonorrheal infection or not; the mother was inclined to think such a thing impossible, and it was probably a case of vaginitis non-specific in character. While the eye was saved, at one time there was some doubt whether it could be done; the corneal inflammation became quite severe, led to superficial corneal ulceration leaving a scar, but it did not penetrate.

Dr. Cheatham calls to my mind a case we saw in which it was impossible to locate the source of infection; the child had quite a serious inflammation of the eye. The father of the child seemed to think that infection came from a dog that the little girl had been playing with. I recall a number of cases of purulent ophthalmia in young girls in which there was present a profuse vaginal discharge. I believe certain cases of leucorrhea are capable of producing simple forms of infection. For that reason I think it would have been wise to try and locate the cause of the infection, to have examined for a vaginal discharge in the patient of Dr. Mathews. In using a syringe she might have gotten pus on her hands and infected her eye in this way. We know infection occurs in this manner frequently in the male. In these cases we get an intense swelling of the connective tissue of the lid; I have seen the whole side of the face infiltrated down to the angle of the mouth, an intense erysipelatosus-like swelling. Some of these cases assume a very malignant type, and whatever the cause, destruction of the eye results in a short time.

As to danger to the other eye: Danger to the good eye was simply from getting the discharge from the affected eye into it. As to sympathetic ophthalmia, we know that it never develops under three weeks. Three weeks to three months is the usual time after injury or perforation of the eye-ball before the other eye begins to show evidences of involvement.

It seems hardly possible that this patient's eye could have been infected on the train. From Dr. Mathews' statement she was on the train less than fourteen hours, and it is hardly possible for gonorrheal pus to get in the conjunctiva and to develop

and destroy the eye in this short time. It takes twenty-four to forty-eight hours for gonorrheal infection to reach anything like the condition Dr. Mathews describes as being present when the patient reached her destination. Evidently the source of infection was introduced before the patient left Louisville.

Dr. William Cheatham: I do not believe an oculist of any standing would advise enucleation of the eye under such conditions. I do not see how he could consistently recommend such a course, if it was simply a case of gonorrheal ophthalmia or suppurative conjunctivitis. It might have been panophthalmitis; that would give a prominent eye-ball and account for some of the symptoms. In such cases we usually have very little discharge. Without any further history I do not see how we can ascertain the cause of the trouble; whatever it was I do not think the rectum had anything to do with it. We see in tear duct cases where the bone is involved and where there is periostitis pus about the eye, especially abscesses of the tear sac, where even the bone is involved, we have pus flowing back into the eye for weeks and months, yet there may be no true suppuration of the conjunctiva with symptoms such as Dr. Mathews has described. Should she, however, have an abrasion of the cornea, then get pus in the eye, such condition as Dr. Mathews describes might follow from infection through this abrasion and enucleation be indicated.

Dr. Louis Frank: While I agree in the main with what the previous speakers have said, yet I would suggest that infection in this case may have taken place from the rectum. We know that we may have a rectal gonorrhea, hence infection possibly of gonorrheal origin might have taken place from the rectum. The case as it stands from the report would lead us to believe that infection was from this source. If my memory serves me correctly, the ordinary pus organisms cannot infect the eye nor any other tissue unless there is an abrasion where they can find entrance. The organism of gonorrhea is the only one which is capable of producing infection without an abrasion being present, the infection being in the cells themselves, and this infection, as we know, is especially prone to occur in the epithelial cells covering the conjunctiva. Upon what grounds the Eastern ophthalmologists based their opinion of course I cannot

say, but without any microscopical or bacteriological examination of the pus, it seems to me they could not positively say that the infection in this case was from an ordinary purulent discharge from the rectum; it would be impossible for it to occur without an abrasion. The woman may have been infected elsewhere, or the husband may have had an old gonorrhea and infection occurred in some way from this.

Dr. I. N. Bloom: I desire to call attention to the incompleteness of the history of the case: In the first place, the exact nature of the eye trouble with which the woman suffered is in doubt; we know nothing more than the general symptoms as given by Dr. Mathews; in order to complete the case we need an accurate diagnosis and a description as to the extent of the suppurative conjunctivitis if she suffered with this affection. Second, the condition of the woman is not known. Of course there was no occasion for Dr. Mathews to examine her. Latent or even acute gonorrhea cannot be excluded. Third, the surroundings of the woman before she left on this trip. She may have gotten the germs of the disease, probably gonorrhea, from attendants before she left on the train, or she may have gotten it on the train. I think the time necessary for development of gonorrheal ophthalmia is less than Dr. Ray has stated. I have in mind a case that developed inside of twelve hours.

In regard to vaginitis: Any vaginitis in little girls or grown women which is sufficiently strong to produce a violent ophthalmia, is gonorrheal in origin. I will remind Dr. Ray of an acute case that we saw some time ago and afterwards took the child to the St. Joseph's Infirmary. I had been treating the little girl, aged eight years, for four or five weeks for what was supposed to be simple vaginitis, the diagnosis based upon the surroundings of the family, their local condition, etc. She developed a gonorrheal ophthalmia of a very striking nature; the mother brought her to me twelve hours later, and it was with great difficulty that the eyes were saved. A week or two later, through reliable sources, I learned that the father had been suffering from an acute gonorrhea, and it is probable that the so-called simple vaginitis was in reality gonorrheal in origin. I should have determined this by finding the gonococci in the secretions.

In order to discuss Dr. Mathews' case satisfactorily, we would have to know a great many things about which we now have little or no information. But I believe we are all agreed that the source of infection had nothing to do with the rectal condition in the husband that the doctor was called upon to treat, or with the secretions following the operation.

Dr. T. C. Evans: I think Dr. Mathews has probably felt in his mind to criticise the oculists a little more severely than the conditions demand. I cannot believe that the woman had gonorrheal ophthalmia from the fact that these two oculists saw the case, and they were presumably good men, who understood their business, and they both recommended enucleation, which is not one of the remedies for gonorrheal ophthalmia. It may have been panophthalmitis. As to the source of the infection, we cannot say anything positively about it.

Selected Papers.

ON CERTAIN FEATURES IN THE PROGNOSIS OF PNEUMONIA.

BY WILLIAM OSLER, M.D., Professor of Medicine, Johns Hopkins University, Baltimore, Md.

THE higher the mortality the more difficult is it to estimate in any disease the value of the various elements of prognosis. Pneumonia is certainly the most fatal of the acute infections of adults in temperate climates. No other disease kills from one-fourth to one-third of all persons attacked. Very elaborate statistics have been collected showing the death-rate of the disease. These have been grouped together by Wells, of Chicago, in one of his excellent papers on pneumonia. Of 233,730 cases the mortality was 18.1 per cent.

Unfortunately it is chiefly from hospitals that we have to gather our facts. S. H. Dickson, whose essay on "Pneumonia" is a storehouse of valuable information, comments on "the

remarkable equality of this proportional mortality in peace and all comfort, in hospitals of wealthy communities, in the field of destructive war, and in hospitals and barracks the emphatic seats of destitution, privation, exposure and neglect."

A few years ago I collected the statistics of mortality from some of the leading hospitals of this country. In the Montrea General Hospital the death-rate was 20.4 per cent.; at the Charité Hospital, New Orleans, 38 per cent.; at the Pennsylvania Hospital, Philadelphia, 29.1 per cent.; at the Boston City Hospital, 29.1 per cent.; at the Massachusetts General Hospital, 25 per cent. These figures are very much the same as those in the large English hospitals, given recently by Dr. Leech. Thus at St. Thomas's for eleven years the mortality was 20 per cent.; at St. Bartholomew's Hospital for fifteen years the mortality was 18.6 per cent.; at the Edinburgh Royal Infirmary, 27.1 per cent.; at the Manchester Royal Infirmary, 28.8 per cent.

Of the first 124 cases of croupous pneumonia admitted to, or developing in, the Johns Hopkins Hospital, 37 died, a mortality of 29.8 per cent.

The mortality in private practice, though high, does not reach the figures which I have just given. The only large statistics available on this point are those in the "Report of the Collective Investigation Committee of the British Medical Association," which was drawn chiefly from private practice. The mortality was only 20 per cent. I wish there could be a collective investigation on this point from the practices of eight or ten of the leading family physicians in New York, Philadelphia, Boston and Baltimore. I feel sure that the figures in adults would show a very high death-rate. It would scarcely be fair to ask consultants to speak of their figures, as they see only the more severe forms. I should say the mortality among the cases which I see with physicians is at least 50 per cent.

Among the circumstances influencing the prognosis some are general, as age, race and habits; others special, as the degree of involvement of the lung, the fever, complications, etc.

Age is a very important factor. As Sturges remarks, the old are likely to die, the young to recover. Series of cases are quoted in Well's paper in which the mortality in children has

ranged from 1.9 to only 3.3 per cent. On the other hand, above sixty years of age the death-rate is very high, reaching 50 to 60, or even 80 per cent. So fatal is it that to die of pneumonia in this country is said to be the natural end of elderly people.

The disease appears to be much more fatal in the negro than in the white. The very high rate of mortality from the disease in the South is stated to be due to this cause, but of the first 124 cases at the Johns Hopkins Hospital 23 were in colored patients, with 6 deaths, a mortality of 26 per cent., against 101 whites, with 31 deaths, a mortality of 30.6 per cent.

Previous habits of life and the condition of bodily health at the time of the attack form the most important factors in the prognosis of pneumonia. In analyzing a series of fatal cases one is very much impressed with the number of cases in which the organs show signs of degeneration. In 25 of my 100 autopsies at the Montreal General Hospital the kidneys showed extensive interstitial changes. Individuals debilitated from sickness or poor food, hard drinkers, and that large class of hospital patients, composed of robust-looking laborers between the ages of forty-five and sixty, whose organs show signs of wear and tear, and who have by excesses in alcohol weakened the reserve power, fall an easy prey to the disease. Very few fatal cases occur in robust, healthy adults. Some of the statistics given by army surgeons show better than any others the low mortality from pneumonia in healthy picked men. The death-rate in the German army over 40,000 cases was only 3.6 per cent.

Apart from certain complications the fatal event in pneumonia may result from a gradual toxæmia, or from mechanical interference with the respiration and circulation.

The toxæmia is the important element in the disorder, to which in the majority of cases the degree of pyrexia and the consolidation are entirely subsidiary. The poisonous features may develop early and cause from the outset severe cerebral symptoms, and they are not necessarily proportionate to the degree of lung involved. There may be severe and fatal toxæmia with consolidation of only one-half a lobe, while a patient with complete solidification of one lobe or of a whole lung may from beginning to close of the attack have no delirium. Many

of the cases which show the most profound toxæmia present variations from the typical picture; thus there may be no cough, no expectoration, very slight fever, and no leucocytosis. In the following cases the clinical features were rather those of a profound intoxication than of any local disorder:

Pneumonia beginning with very acute delirium simulating insanity. November 7th, 8:18 p. m., I was sent for to see E. H., aged 28 years, a large, able-bodied man, who had been brought by his family from Pittsburg, Pa., where he had been in the West Penn Hospital for eight days. He had been in Chicago at the World's Fair and had seemed quite well. He left Chicago on Monday evening, October 30th. On the train he was noticed to be behaving strangely, and had delusions that there were numerous train-robbers, and that there were a number of persons following him. His conduct disturbed the passengers so much that at Pittsburg he was taken in a patrol-wagon to the West Penn Hospital. There he became actively delirious and was placed in a straight-jacket, after having made a futile attempt to cut his throat. He was evidently very ill, though he had no cough, and there was not much fever, though he complained a good deal of pain in the side. His relatives removed him yesterday. He stood the journey well. When I saw him he seemed rational; respirations were very hurried, 55 to the minute. The color was bad; the pulse was 120, and feeble. He had just been carried up and was in a condition of a good deal of excitement. He told a very pitiful story of his capture, as he called it, at Pittsburg, and how the people had conspired to put him in the hospital. The temperature was 99.5°. It really seemed as if the condition was some form of acute insanity, which opinion was strengthened, of course, by the fact that on a former occasion he had some slight mental aberration. He begged me not to examine the chest, as he was quite exhausted.

8th. The patient had a fairly good night; morning temperature was 100.2°, pulse 128; the finger-tips a little cyanosed. Examination of the chest revealed to my surprise almost complete consolidation of the left lung, with dry, intense tubular breathing. The only resonance was in the infraclavicular region, where the note was Skodaic in character. He was very much quieter, the delirium had entirely disappeared, and he

took his medicine and food well. He complained of a great deal of pain, and he had a quarter of a grain of morphine at night. He was given whiskey and Dover's powder.

9th. The patient seemed to be doing fairly well. There was no delirium. The temperature in the morning was a little over 100° , and in the evening 101.2° , the first time that it had registered above 101° . The lung was completely consolidated to the top; intense blowing breathing everywhere. He had no cough, and no expectoration. The pulse was a little more rapid in the evening, 130; respirations at 60. The tongue was not dry, and in the evening he expressed himself as feeling more comfortable.

10th. This morning, at 8.15, the temperature was 99.5° ; the pulse 118, and of rather better volume. He had dozed at intervals through the night, but not having as much sleep as he wished, and he still complained of a good deal of pain. He seemed, however, quite rational. He had taken his food very well. There was no cough. The color of the lips was good; that of the finger-nails a little livid. Respiration 60 per minute. He had not taken the ammonia during the night, and he was ordered full doses of strychnine. His condition, on the whole, though still critical, seemed more comfortable, and he said that the pain was much less. About 11 o'clock he became a little more delirious, the nurse was called, and he was found perspiring profusely, and had become very cyanosed. The respirations became more rapid, he became unconscious, and within a little more than an hour from the onset of the serious symptoms death took place.

Toxic pneumonia, without cough, expectoration or high fever. Mr. G., aged about sixty-six years, seen February 8, 1894, with Dr. Alan P. Smith. The patient was a very vigorous, healthy man, who, during the winter, had been somewhat overworked. On the evening of February 3d he attended a concert at the Peabody Institute, which was rather long, and he complained a good deal of being tired. On Sunday, February 4th, he did not take his breakfast as usual, and toward the middle of the day he had a chill, not, however, of long duration or of great severity. He complained of a good deal of pain in the back and aching in the joints and in the legs, so that it was regarded

as possibly a case of influenza. He had no cough, no shortness of breath, and the fever was very moderate. He had pain across the lower part of the back, which was exaggerated on deep inspiration.

On Tuesday and Wednesday he was weak and prostrated, complaining a good deal of the muscular pains. The temperature was not above 100.5° ; the pulse was good; there was neither cough nor expectoration. The lungs were examined, but no changes were found. He seemed, however, very ill, and he had occasionally a little wandering.

On the morning of Thursday, the 8th, Dr. Smith discovered dulness at the base of the right lung. Throughout the day he became much worse, more delirious, and the pulse feebler. When I saw him late in the afternoon the pulse was 132, the beats irregular in volume and intermittent. The heart-sounds were clear, but had a somewhat foetal rhythm. The skin was moist and he was sweating profusely. The tongue was dry. He had been wandering a good deal, but he talked to me rationally. The lungs were clear in front; behind, over the middle of the scapula, there was flatness which extended as far as the posterior axillary fold, with tubular breathing and numerous râles. There were no râles at the base of the other lung, and the respirations were only 28. There was not, nor had there been, any respiratory distress.

The abdomen was not distended, the spleen not enlarged. There had been from the start neither cough, nor expectoration, nor had there been any special dyspnoea. The patient had had an objection to stimulants, but he was ordered at once whiskey and brandy in full doses, ammonia, and for twenty-four hours moderate doses of digitalis.

Throughout the night his condition improved materially, and on the morning of the 9th the pulse was 98, regular, full, and of fair tension.

He had some delirium, but seemed altogether better, and he had taken his nourishment and stimulants well. The temperature was 100.5° . In the evening he did not seem quite so well; the temperature rose to 101.8° , the highest point it had reached; the pulse was more rapid; he had more delirium; the tongue

was dry; and he looked badly; still no cough, no expectoration. The consolidation had extended a little further into the axilla.

11th. Patient had a bad night, and had refused to take his food. The pulse had again become very rapid and irregular, and he seemed much more prostrated. Dr. Smith stayed the night with him, as he would only take the medicines from him. The pulse this morning is better, 116, of good volume, but occasionally drops a beat. He is rather drowsy, the respirations are 32, tongue dry, and he looks like a man in a condition of profound toxæmia. He sank gradually and died in the evening.

These two cases illustrate a type of pneumonia in which the general toxic symptoms overshadow entirely the local and more usual features of the disorder. These severer types are seen particularly in the epidemic form and in old people, and the toxæmia may be out of all proportion to the local disease.

Probably, too, the sudden and unexpected death in pneumonia may be attributed to the action of the specific toxins on the heart-centres, rather than on the muscular substance of the organ itself. This seems more reasonable than the former idea that it was the action of the high fever upon the myocardium. These cases are by no means uncommon, and one has always to be on the lookout. I have notes of three cases which I have seen within the past few years. In the first, massive pneumonia with great obscuration of the physical signs, owing to blocking of the bronchial tubes, death occurred quite unexpectedly on the sixth day; in the second, death occurred suddenly on the fourth day; and in the third case the patient died in collapse on the third day.

Massive pneumonia; death on the sixth day. Benjamin M., aged thirty-eight years, colored, hod-carrier, was admitted December 14, 1894, complaining of pain in the right side of the chest and cough.

He had been strong and well, with the exception of rheumatism at 25 years; he had a chancre in 1884.

On December 5th he caught cold, but kept at work for the two following days; on Monday, the 10th, he had a headache, and while still in bed was seized with severe pain in the right chest, followed almost immediately by a severe chill. The pain, which was sharp and stabbing, grew steadily worse and was

aggravated by coughing. The expectoration was profuse. He had been in bed since the onset of the pain.

On admission the temperature was 104° , the pulse 130, the respirations 40. He was a large, powerfully built man, propped up in bed on his back; respirations shallow; no marked cyanosis. The mind was clear. Pulse was full, bounding, and slightly dicrotic; the tension was low. The expiration was interrupted by a slight jerking cough. The percussion-sound on the right side of the chest in front was clear to the fourth rib; below this and over the left back it was dull. There was a distinct friction-rub heard in the right axilla and at the base. The breathing was nowhere typically tubular, but in the infrascapular space behind there was modified bronchial breathing. After coughing a few moist râles were heard. Tactile fremitus was present; the voice-sounds were nasal. The other lung was clear. The leucocytes were 10,200 per c.cm. The sputum was viscid, slightly rusty.

15th. The temperature kept uniformly between 103° and 104° ; he was delirious; the pulse was about 120, respirations 48 to 50. The cough was very frequent and distressing. There was a tympanitic note at the right apex, shading into dullness, which extended over the whole of the rest of the lung. The friction-rub was loud in the axilla, where the respiration was distinctly tubular. At the base the breathing was feeble, and distinct tubular breath-sounds could be heard, except at one small spot just below the angle of the scapula. On the left side the breath-sounds were clear, with the exception of a few fine râles at the end of inspiration. The patient seemed to be doing very well. The leucocytes sank on the 15th to 6000 per c.cm. There was albumin in the urine in considerable amount, and a large number of granular casts.

On the morning of the 16th, at 8 o'clock, there were urgent dyspnœa, great rapidity of the heart's action, and liquid râles everywhere over the left lung and in front upper lobe of the right lung. He sank and died in a few hours.

Abstract of autopsy (No. 602). Anatomical diagnosis: massive pneumonia affecting right lung; occlusion of bronchus (by fibrinous plug) going to the lower lobe; acute serofibrinous

pleurisy; fresh patch of pneumonia in left lung; general pneumococcus-infection.

The right lung, with the exception of the anterior edge, extending backward a quarter of extent of the entire lung and the apex, was consolidated. The solidified portions were granular, reddish; the apex lung was filled with a fibrinous plug which completely obliterated the lumen. The pleura was covered with a fibrinous exudate.

In the left lung there was a small area of consolidation in the lower lobe. There was no endocarditis. The heart-flesh was friable. The kidneys looked a little swollen and the cortices were coarse. Cultures from the organs and from the blood of the heart showed colonies of the micrococcus lanceolatus.

In the following case death occurred suddenly on the fourth day:

Labor pneumonia ; sudden death on fourth day. A. P., aged 20 years, colored, driver, admitted May 21, 1894, complaining of cough.

The family and personal history was very good.

Three weeks ago he was struck on the back of the ear with a glass bottle. The wound bled profusely. A week later he had fever and headache, and was cupped on the back of the neck.

He was seen at the dispensary two days ago, at which time he had no fever, and the examination was negative.

Yesterday, the 20th, about 6 p. m., he had a shaking chill, followed by fever and a sharp pain in the left side. The pain was very severe through the night, and was much worse when he drew a deep breath. He had a cough with blood-tinged expectoration.

The temperature on admission was 103° and rose at 2 p. m. to 104° ; the respirations were 56 and shallow; the pulse 128, soft, full and regular.

The examination showed dulness in the lower lobe of the left lung, with distant but not distinctly tubular breathing. The heart-sounds were clear. The sputum was rusty and contained numerous diplococci. There were albumin in the urine and a few granular and hyaline casts. The leucocytes on the 21st were 50,000. He was ordered ice poultices and Dover's powder at night.

22d. The temperature had been remarkably uniform, scarcely varying half a degree from 104° . The signs of consolidation in the lower lobe of the left lung were more marked. The heart-sounds were clear; the first a little reduplicated, and the second pulmonic was accentuated. There was a soft, systolic murmur in the pulmonary area. The spleen was not palpable. The urine was a little smoky, and a few blood-cells were seen, but no tube-casts. The sputum was mucopurulent. The leucocytes were 20,000 per c.cm.

On the 23d the temperature had risen nearly to 105° ; the pulse was 116, regular. At the time of the morning visit he seemed doing very well. On the evening before, he had an attack of hiccough and had been very restless. The mind was clear, and there did not appear to be any extension of the local condition. I noted, however, that Skoda's resonance was very marked at the apex in front. He had been taking small quantities of whiskey and aromatic spirits of ammonia. In the evening, without any warning, or without any special aggravation of his symptoms, the nurse noticed that he was gasping for breath, and in a few moments he died before the house-physician could be summoned.

Abstract of autopsy (No. 521). Anatomical diagnosis: croupous pneumonia; acute nephritis; fatty degeneration of heart-muscle.

The left lung was voluminous; the pleura of the lower lobe was covered with fibrin. The lower lobe was consolidated throughout, finely granular, and on section grayish-red in color. The upper lobe was also consolidated, particularly in the anterior half.

The right lung was voluminous; the upper and lower lobes emphysematous. The lower lobe is slightly granular, on section red, and in a condition of beginning hepatization. The heart-muscle showed microscopically much fat. The kidneys were swollen, mottled on the surface, and microscopically showed signs of acute nephritis.

Quite serious collapse-symptoms may occur early in the disease, even within twenty-four hours. The following is one of the most striking cases I have seen, in which the patient had three attacks of cardiac syncope, the last of which proved fatal

on the third day of the disease. I give the notes just as I dictated them to my secretary on returning from the consultation:

Pneumonia; fatal collapse on the third day. June 27, 1893, 12.45 a.m., I saw, with Dr. King, Mrs. S., aged forty-four years, a healthy, well-nourished woman, who had a severe chill on Saturday night, 24th, and who since has had signs of pneumonia at the right base, with high fever, reaching at times to 106°. There has been no albumin in the urine, the respirations have not been above 48, she has had very little cough, and her general symptoms have not been alarming; but on three occasions she has had serious collapse-symptoms, the first on Sunday, which lasted for only a short time, the second found her in the following condition:

She lay on her back with the eyes open and fixed; the pupils small, and did not react well to light. The color of the face was fairly good; the lips red, not cyanotic. She did not reply to questions and seemed completely oblivious to her surroundings. The respirations were hurried, 40 to the minute. The appearance was rather that of a nervous or hysterical attack than of severe collapse. At first she did not look very ill, except that the sockets of the eyes were rather dark and a little sunken. The face, however, was not at all pinched. The pulse was 132 small, and easily compressible; when first felt it was quite regular. She had just been given a hypodermic injection of a drachm of brandy, and she was ordered hypodermics at once of ether and strychnine. I remained about half an hour, during which time she changed remarkably. The unconsciousness persisted; she moved the mouth somewhat, and it twitched a little. The limbs were motionless. The heart-sounds at first were perfectly clear and distinct, without murmur. Gradually they became feebler; the pulse rose to 140, was small, and beats were occasionally dropped. The color of the hands was at first good, the nail alone perhaps a little cyanosed. Gradually there was a suffusion of the fingers and then of the hands, and within less than half an hour after I saw her the pulse could not be felt at the wrist, and the heart-sounds were extremely feeble—only just audible. The respirations did not materially increase, but they became a little noisy, and her face changed somewhat in expression. It really looked as if the end was imminent.

P. S.—It was; she died at 2.30 P.M.

Mechanical interference with respiration or circulation is a very much less frequent cause of death. The interference may be the gradual exclusion of the air, by the filling up of the follicles, or the capillaries in extensive territories may be compressed. These factors occur together, and the depressing element of great loss of blood-serum, upon which Bollinger lays stress, must also be taken into account.

Very large areas of the breathing-surface may be cut off without seriously disturbing the cardio-respiratory mechanism. In no way is this more strikingly shown than by the condition of the patient after the crisis. On one day with a lung consolidated from apex to base, the respirations at 60 to 65, the pulse 120, and the temperature between 104° and 105° , the patient may seem in a truly desperate condition, and it would appear rational to attribute the urgent dyspnœa and the slight cyanosis to the mechanical interference with the interchange of gases in the lungs. But on the following day the dyspnœa and the cyanosis may have disappeared, the temperature is normal, and the pulse-rate greatly lessened, and yet the physical condition of the lungs remains unchanged. We witness no more striking phenomenon than this in the whole range of clinical work, and its lesson is of prime importance in this very question, showing that the fever and the toxins rather than the solid exudate are the essential agents in causing the cardio-respiratory symptoms.

Of course, there are cases in which the exit of air is gradually and effectually shut off by progressive consolidation until ultimately a point is reached in which the patient is simply smothered, and literally dies from want of breath. It is difficult to say how much breathing-area is needed to maintain life. That a man can get along with very little, if the removal takes place gradually, is shown by cases of progressive tuberculosis of the lungs. In pneumonia recovery is not infrequently seen after consolidation of one lung; rarely after consolidation of one lung with one lobe of the other. One occasionally meets with cases in which both lungs are almost completely solidified. In Case 49 of my series of autopsies the left lung, with the exception of the anterior border, was in a state of uniform red hepatization;

while the right was in a state of gray hepatization, with the exception of a still smaller portion of the anterior margin. In these cases the dyspnœa is usually urgent and distressing, and the cyanosis early and pronounced; while the cerebral features of the disease may be completely absent. But even here we must be on our guard against a too mechanical conception of the process. While theoretically we may suppose great obstruction to the pulmonary circulation to exist in consequence of the compression of the alveolar capillaries by the exudate, it has been shown by the well-known experiments of Welch that it is exceedingly difficult to raise the blood-pressure in the pulmonary artery by cutting off territories of the circulation in reality much more extensive than are ever involved in pneumonia.

As I have already mentioned, in speaking of the remarkable phenomena associated with the crisis, additional factors must be considered, namely, the weakening influence of the fever on the heart-muscle and the depressing effect of the toxins on the cardio-respiratory centres. This explains in part, too, why we do not get such satisfactory results from venesection in pneumonia as in similar conditions of dilatation of the heart with cyanosis, in emphysema, arteriosclerosis, and valvular disease. While it is rare in the one to see even copious venesection followed by relief, in the others the good effects are often most striking.

The toxæmia outweighs all other elements in the prognosis of pneumonia; to it (in a gradual failure of strength or more rarely in a sudden death, as in the cases here given) is due, in great part the terrible mortality from this common disease, and unhappily against it we have as yet no reliable measures at our disposal.

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and any remittances by P. O. Order, Draft or Registered Letter, made payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

OUR INSANE ASYLUMS.

It is likely, almost a certainty, that the old officers of the State Insane Asylums will be removed. Such action for purely political reasons is an outrageous shame. All doctors are not prepared to treat insanity. A man who is placed at the head of such an institution should have had special and thorough training. The average general practitioner does not know enough about the treatment of insanity and the care of the insane to assume the management of an asylum. A man should not get his experience at the head of an institution, but in a subordinate position, and the removal of men who have made a long and special study of this branch of medicine, and the substitution of inexperienced men, are calculated to work mischief and reduce the usefulness of these institutions. We know of one man, a physician of high standing and ability, but who has probably had no experience in mental diseases, who was named to succeed the present able superintendent of the Morganton

Asylum, but declined. We honor him for this action and would there were more like him. We would strongly support a resolution introduced at the next meeting of the Society condemning the removal of any medical officer from a public hospital, except for cause. These institutions should be free from political influence, and the unfortunate inmates should not be subjected to the treatment of an inexperienced man simply to give pap to a political ally.

HIGHER MEDICAL EDUCATION.

Dr. William C. Brinkerhoff, in a communication to the *Chicago Tribune*, criticises the recent medical laws that are being rapidly adopted by the various States, and thinks that laws should be enacted to apply to the teachers in the medical schools rather than to the graduates from these schools. He says "the fountain head made competent and intellectual, the streams of students that annually flow from our medical colleges will be qualified and capable. They will need no laws to test their fitness for medical practice. Like begets like."

He thinks that the teachers in medical schools should be made to stand examinations just as are those in our public schools; for under the present conditions "he of the medical profession who has to-day a small sum of ready money can exchange it to-morrow for stock in a medical college, and the next day can appear before the class in the robes of professordom. . . . Establish the medical professorships upon this basis of 'higher medical education,' then let the diplomas they grant be *prima facie* evidence of competency on the part of the graduate."

Competency on the part of the teacher does not necessarily imply competency on the part of the graduate, and it is the graduate, and not the teacher, who will have to do with the health and lives of the people. A law in Illinois requiring teachers in medical schools to show their fitness for their positions, would not protect the people of North Carolina against the incompetency of an Illinois graduate who might come here

to practise. Let all the States enact laws requiring an examination of those who would practise medicine, and in regard to the colleges we will be willing to trust to the law of "the survival of the fittest." Students will soon learn that they must attend those colleges whose graduates are able to pass the State Boards if they would practise in those States, and the poor colleges will surely go to the wall for lack of patronage.

Reviews and Book Notices.

The International Medical Annual and Practitioner's Index. A work of reference for Medical Practitioners. 1897. Fifteenth Year. Cloth, 724 pages. Price \$2.75. E. B. Treat, New York.

To those who have had an opportunity of inspecting former editions of this work it is unnecessary to commend it, but to those who have never had that pleasure we would say the work is a complete and condensed review of medical progress during the past year. This is the fifteenth edition and is the same size and style as the preceding. It is liberally supplied with cuts and colored plates to illustrate the text. The subjects are arranged alphabetically, and good judgment is generally displayed in the selection of matter.

Lectures on Appendicitis and Notes on Other Subjects.

By Robert T. Morris, A.M., M.D., Fellow of the New York Academy of Medicine, etc. Second edition, revised and enlarged. With illustrations by Henry McDonald, M.D. Pages 173. G. P. Putnam's Sons, New York. 1897.

This edition of Dr. Morris' work is identical with the first edition with the addition of three chapters—Healing through the agency of Blood Clot; Subsequent Notes on Appendicitis; Formalin Catgut.

EXPECTORATING IN CARS.—It is reported from Chicago that a well-known lawyer, of prominent social and political position, has been arrested for expectorating in a street car. He threatens to sue the company for \$50,000 damages.

Abstracts.

ACUTE DYSPEPSIA OF INFANCY.—(Editorial in *Pediatrics*.)
“At the outset of a disturbance in the digestive functions a change of color of the motions usually appears. This seems to be due to biliverdin, but at the same time there is doubtless excessive microbic action, for the normal acidity of the feces is lost. The next symptom is an increase in the number and a diminution in the size of the stools, and the presence of volatile fatty acids rendering the stools excessively malodorous and irritating. Later in the disease vomiting supervenes with loss of appetite. Since the green color is not seen post-mortem as high as the duodenum, which leads Heubner to conclude that the affection begins as a chemical derangement of the jejunum and upper part of the ileum.

“The radical treatment of this affection is rendered difficult by the fact that it commences in the most inaccessible part of the alimentary tract, namely, the small intestine. The first necessity, as Heubner well says, is to wash out the stomach, a procedure which, although it has been extensively employed abroad in the treatment of infantile dyspepsia since Epstein introduced it fourteen years ago, seems to have found but scant favor in England. It is easily done by means of a soft catheter, the child lying on its left side, on the nurse's knee, facing the operator and having the hips raised three or four inches above the level of the head. One or two ounces of 0.02 per cent. solution of resorcin or 0.5 per cent. solution of boracic acid are poured in through a funnel, the quantity varying with the size of the patient. The funnel is then depressed and washing continued till the fluid comes away clear; the sitting is concluded by the introduction of $\frac{1}{2}$ –1 drachm of castor oil through the tube. Should lavage be deemed unnecessary or inadvisable, Heubner recommends the administration of a powder containing $\frac{1}{2}$ – $\frac{2}{3}$ grain calomel and 15 grains magnesium carbonate every three hours until the characteristic greenish-gray stools begin to appear; one dose usually suffices; more than two or three are practically never required. The alimentary canal having thus been cleared out, the next step is to

regulate the diet, by striking out the food which is suspected to have been the cause of the symptoms. It is best, if possible, to rely entirely upon sterilized milk, but if this was the diet before the attack some farinaceous food will now be indicated. Any of the better class of infants' foods may be given, but not boiled up with milk, which forms a mixture difficult of digestion. Heubner's plan is to take a tea- to a tablespoonful of the food and to shake it up with cold water, subsequently boiling with a pint of water for a quarter of an hour. In very bad cases rice meal or arrowroot should be substituted for the prepared food, a tablespoonful or so of milk-sugar being also added. Whatever form of nourishment is given should be carefully sterilized, to prevent the growth of the milk bacteria in it. This diet produces brown, rather solid, dejections; after it has been continued for three days one may assume that the intestinal bacteria have been starved out and that the time has come for cautiously recommencing with sterilized milk, which should be done by gradually stirring an increasing quantity into the gruel. Intestinal antiseptics are rarely of use, though Soltmann recommends resorcin and Widowitz speaks very highly of naphthalene; if necessary, however, the acidity of the motions should be restored by the use of very dilute lactic acid (Lesage).

"Acute dyspepsia is most difficult of treatment when it occurs in breast-babies under the age of three months, before which time farinaceous food is badly borne, either leaving the intestine unchanged or increasing the dyspepsia. A gruel made of ground arrowroot, maize or rice, is, perhaps, less intolerable than other forms, but in many cases one is reduced to feeding the infant for a day, at least, on thin veal broth or egg water (the white of one egg with some milk-sugar to two pints of boiled water). If this diet is properly assimilated it may be continued for a couple of days, the child then being put onto a mixture of a pint of cow's milk with two pints of 5 per cent. solution of milk-sugar. In some instances peptonized or albumose milk may be given with advantage. Such is the treatment of a condition which, though of obscure origin, presents itself as a definite clinical entity, and although increasing knowledge may improve our insight into its pathology, it is

hardly likely to subvert the rational basis of remedial measures based on experience and common sense."

CAPITAL OPERATIONS WITHOUT ANESTHESIA.—In a paper read by Dr. J. J. Buchanan, surgeon to the Pennsylvania Railway Company, at the meeting of the National Association of Railway Surgeons, in St. Louis, the following conclusions are presented: 1. Patients with limbs so crushed as to require amputation, who are in good general condition, should be operated on at once. 2. Those who present evidences of severe shock and great loss of blood, should be treated by external heat and stimulants, including the hypodermic use of whiskey, digitalin, strychnine and nitroglycerin, and the rectal injection of whiskey, strong coffee and hot water. The crushed limb should be disinfected as completely as possible, and six per thousand saline solution of not less than two quarts for an adult be allowed to flow into a vein, this infusion to be repeated, if necessary, at intervals of a few hours, according to the effect produced. 3. If by these efforts complete reaction should be established, anesthesia and amputation should be proceeded with as in ordinary cases. 4. If, however, a moderate or doubtful reaction only should occur, the propriety of a rapid amputation without anesthesia should be seriously considered, if the consent of the patient be gained. 5. The complete disinfection of crushed, lacerated, dirty and infected limbs usually cannot be accomplished. 6. The sooner such limbs are removed, the better, provided the patient's life be not lost in the operation. 7. If, notwithstanding the vigorous treatment just mentioned, an amputation, either with or without anesthesia, be fraught with great risk, it is far better to disinfect as thoroughly as possible, drain well, pack all open spaces, and take the chance of infection, which, in most doubtful cases, is probably less than the risk of death from shock following operation.

REJECTIONS FOR LIFE INSURANCE.—Dr. John Homans, medical director of the New England Mutual Life Insurance Co., Boston, Massachusetts, says: The presence of the following diseases and conditions in any person applying for insurance will cause the rejection of the applicant unless the applicant

presents himself for an examination by the medical director at the home office in Boston:

1. Albumen in the urine; asthma, except rose cold or hay fever; caries, or necrosis of bone; chronic ulcers; cough, frequent or habitual; delirium tremens at any time; diarrhea, present or chronic; discharge from ear; enlarged glands; enlarged veins (varicose) above the knee; epilepsy; fistula, hernia, unless reducible and a suitable truss is worn; insanity; intermittent pulse; opium, chloral, or cocaine habit; paralysis; prostate gland disease; pulse below 50 or over 90, stricture, and sugar in the urine.

2. Light Weight.—Persons 15 per cent. under weight, who have lost relatives from consumption, and all persons who are 25 per cent. under weight.

3. Heavy Weight.—Persons 25 per cent. over weight, who have lost relatives from apoplexy or heart disease, and all persons who are 40 per cent. over weight.

4. Consumption in the Family.—1. Where more than three cases have occurred. 2. Where the applicant is under 20, and one case has occurred. 3. Where under 30, and one parent has had consumption. 4. Where under 35, and any two members have shown the disease. 5. Where under 50, and both parents have had the disease.

5. Repeated attacks of renal or hepatic colic and the passage of gall-stone within five years, or a renal or vesical calculus within three years.

TREATMENT OF PROSTATIC HYPERTROPHY AND RETENTION OF URINE CAUTERIZATION THROUGH THE RECTUM.—Dr. Negretto *Gazz degli Osped.*) reports four cases which he treated in the following way: The patient is anesthetized after thoroughly emptying the rectum, and a rectal speculum is passed. The upper part of the rectum is plugged with gauze and under the guidance of the finger a specially devised hook with graduates is passed into the prostate to steady it. The prostate is then cauterized over the extent required. The operation lasts but two minutes. The bowels are kept confined and a catheter is kept permanently in the bladder for some time. A purge is given on the sixth or seventh day and the catheter is removed on the tenth

or twelfth day. The patients were 56, 62, 74 and 78 years to age respectively, and had suffered from the disease for from three to five years on the average. In each case the congestion was speedily relieved and the size of the prostate notably diminished. The author thinks this method superior to excision of the vas deferens or to castration.—*Med. Record.*

THE MARAGLIANO SERUM.—A correspondent of the London *Lancet* writes from Rome that the Maragliano serum promises as good results in the treatment of pulmonary phthisis as antitoxin has given in the treatment of diphtheria. Because of the nature of tuberculosis the antitoxin can never assert its power so rapidly and decisively as in diphtheria. Dr. Maragliano has had most success in private practice, because in such cases the patient usually consults a physician in good time and has the comforts and careful attendance of home; in hospital practice the patient is usually far gone in the disease, his strength has been sapped by pyrexia or hæmoptysis, and his resisting power is low through malnutrition. Even in these cases Dr. Maragliano has had most encouraging success. His followers of the Neapolitan school, though slow to adopt this treatment, have not been less successful, and Dr. De Renzi, the dean of Italian clinicians, announces that he has had forty cases of cure by the Maragliano serum in his wards and equally gratifying results in private practice. He advises one not to despair even though two hundred injections have failed to produce the desired effect. He observed that improvement was noticeable even in the most intractable cases, and one need only suspend the treatment for a short time to witness the rapid exacerbation of all the symptoms and hastily to resume the injections. Dr. De Renzi has inoculated phthisical patients with five milligrams of Koch's tuberculin and has obtained a strong reaction; but applying the same treatment to patients already under the Maragliano treatment, the reaction was less marked, showing that they had been immunized against the "protein tuberculari." In proportion as he increased the number of injections of the Maragliano serum he augmented the immunity against the tuberculous poison, until after thirty or forty injections the reaction to the same dose of tuberculin was scarcely appreciable. According

to Dr. De Renzi's opinion, there is no remedy for phthisis equal to the Maragliano serum; it seldom fails to relieve, and, if applied in time and persevered in, it almost invariably effects a cure.—*Ibid.*

A STUDY OF THE BLOOD IN RICKETS.—Dr. John Lovett Morse (*Boston Med. & Surg. Jour.*), from an interesting study of the blood in 20 cases of rickets, draws the following conclusions: The results obtained in these cases, together with those obtained by others, seem to justify the following conclusions: Most cases of rickets are accompanied by anemia. This anemia may be of any form and of any grade of severity. The severity of the anemia varies in a general way with the severity of the process. The most common form is that in which the number of red corpuscles is normal or nearly normal, and the percentage of hemoglobin both absolutely and relatively diminished. The anemia may or may not be accompanied by leucocytosis. Leucocytosis occurs more frequently in the cases with splenic tumor than in those without. It may be due to an increase in any or all of the varieties of white corpuscles. The specific gravity varies with the amount of hemoglobin. Finally, there is no form of anemia found in rickets which may not be found in other conditions, and no form of anemia found in other conditions which may not be found in rickets.

"THE GOOSE HANGS HIGH."—Mr. H. H. Clayton, writes to *Science*, under date of March 22d, that on that morning, while Mr. A. E. Sweetland and he were measuring clouds, at the ends of a base line 1178.4 metres in length, extending from the Blue Hill Meteorological Observatory to the base of Blue Hill, they succeeded in measuring with their cloud theodolites, the height and the velocity of a flock of geese. So rapid was the flight that the flock was visible only about two minutes, but during that time two sets of measurements were taken with the theodolites on the leader of the flock. The calculations gave the height as 905 feet above the Neponset river valley, or 960 feet above sea level, and the velocity of flight as 44.3 miles an hour. The direction of flight was from southwest to northeast. The wind at the time of the measurement was from the west northwest, with a velocity of eight miles an hour. On a previous occasion, as described in *Science*, January 1st, p. 26, these observers found a flock of ducks flying from the northeast at a height of 958 feet, with a velocity of 47.8 miles an hour. The close agreement between the two results is suggestive.—*Boston M. & S. Jour.*

Therapeutic Hints.

GUAIACOL IN PUERPERAL ECLAMPSIA.—In the *Boston Med. and Surg. Jour.*, March 18, 1897, Appleby speaks of the use of guaiacol in two cases of puerperal eclampsia with happy results. Each patient was a primipara. In one, the convulsions had come on during the third stage; in the other after delivery. In both the convulsions were powerful and almost continuous. Forty or fifty drops of guaiacol were poured upon the abdomen and gently rubbed in. In a few minutes the pulse became soft, free diaphoresis set in and the convulsions ceased. Both patients recovered perfect health without further convulsions. If these had recurred the writer would not have hesitated to use guaiacol the second time.—*Med. News.*

THE TREATMENT OF EPILEPSY.—For many years past, and as the result of a large experience at the Glasgow Royal Infirmary, I have been in the habit of teaching and of insisting upon what I believe to be a therapeutical fact, that the best treatment for epilepsy is found in a combination of bromide of potassium with tincture of belladonna. With this combination, and the removal of all sources of peripheral irritation when lasting, I consider 90 per cent. of cases of epilepsy curable. Not less than 15 grains of the bromide should be given three times daily, and the dose of the tincture of belladonna, to begin with, should not be less than 15 drops. Both drugs should be pushed in obstinate cases until a modified toxic effect results. I sometimes conjoin bromide of camphor and a small dose of extract belladonna in form of pill, with extract gentianæ at bedtime. I can recommend this treatment with confidence to gentlemen whose practices specially embrace cases of epilepsy. I am, etc.,

—D. CAMPBELL BLACK, in *Brit. Med. Jour.*

PERTUSSIS.—F. Gundrum (*Therap. Gaz.*, 1896, xx, 726) advocates the use of atropia, bromide of sodium and quinine. To a girl six years old he gave

℞.—Sodii brom 3 ii
Atropin gr. $\frac{1}{8}$
Syr. aurant ad. $\frac{3}{4}$ iii

M. Sig.—Teaspoonful every three hours, to be continued until the pupils are well dilated, unless the spasmodic cough ceases before.

And

R.—Quin. sulph . . . ℥iiss
Syr. yerba santæ co ℥iii

M. Sig.—Teaspoonful once in three hours until hearing is affected.

He is well satisfied with these combinations, but they must be given thoroughly and steadily, and pushed until the full effects of both remedies are obtained.—*Pediatrics*.

THE PUBLIC SERVICE,

ARMY.

For the 15 days ended April 15, 1897:

Banks, C. E., surgeon, to inspect service at New Orleans, La., Mobile, Ala., Savannah, Ga., Charleston, S. C., and Wilmington, N. C., April 3, 1897.

McIntosh, W. P., passed assistant surgeon, granted leave of absence for one day, April 5, 1897.

Stoner, J. B., passed assistant surgeon, to proceed on or about April 12, from Savannah, Ga., to Norfolk, Va., for duty, April 2, 1897.

Geddings, H. D., passed assistant surgeon, detailed to represent Department at 12th International Medical Congress, to be held in Moscow, Russia, August 19-26, 1897.

Wertenbaker, C. P., passed assistant surgeon, granted leave of absence for three days from April 17, 1897.

Oakley, J. H., passed assistant surgeon, when relieved at Philadelphia, Pa., on or about April 8, 1897, to proceed to Savannah, Ga., for duty, April 2, 1897.

Prochazka, Emil, assistant surgeon, when relieved at Delaware Breakwater Quarantine, on or about April 20, 1897, to rejoin station at Reedy Island Quarantine, April 6, 1897.

Cumming, H. S., assistant surgeon, to proceed on April 8, 1897, from New York, N. Y., to Philadelphia, for duty, April 2, 1897.

Promotion.

Assistant Surgeon J. H. Oakley commissioned as passed assistant surgeon, April 7, 1897.

NAVY.

For the week ending April 17, 1897:

April 10—Surgeon J. W. Baker, detached from the "Bennington" on relief and placed on waiting orders.

April 14—Surgeon M. H. Simons, orders to the "Columbia" revoked and placed on waiting orders.

April 15—Surgeon E. Z. Derr, orders detaching him from the "Columbia" revoked.

April 16—Passed Assistant Surgeon E. S. Bogert, detached from New York Navy Yard and ordered to the marine rendezvous, New York.

Miscellaneous Items.

Dr. William H. Thompson has resigned the chair of Practice of Medicine in the New York University.

Dr. Herman M. Biggs has been invited to deliver the address on State Medicine before the British Medical Association at its next meeting in Montreal. Dr. William Osler will deliver the address in Medicine.

"The Maryland Medical Journal" states that Dr. William H. Welsh and Dr. William Osler have been tendered chairs in the new medical school of New York at salaries never before offered by such an institution, but that these gentlemen have decided to remain with the Johns Hopkins Hospital, where they have done such excellent work.

A PHYSICIAN'S GIFT TO EDUCATION.—Dr. John C. Terrell, who practised medicine for many years in Roxboro, North Carolina, but who has spent the last few years of his life in Philadelphia, where he recently died, bequeathed \$50,000 to the public schools of Person county, North Carolina, and in addition a sum sufficient to build a new school building in each of the twenty-nine townships of the county.—*Med. Record.*

A GREAT HONOR TO THE YOUNG MEN.—Dr. Isaac Hall Manning, of Chapel Hill, has won a place in the medical staff of the Long Island Medical College Hospital. Dr. Charles Roberson won the prize for the best essay on anatomy at the same medical college. These two prizes are the ones most coveted in the college, and as both of the young men are University of North Carolina alumni, great credit is reflected on the teaching of Dr. R. H. Whitehead of the Medical Department.—*Ex.*

NC Med J. (65) 39:320, #9, 5 May 1897

ONE SOLITARY MEDICAL COLLEGE IN NORTH CAROLINA.—Mr. S. P. Stafford, of the class of 1897, medical department, University of Pennsylvania, calls attention to the fact that an error occurs in a recent editorial which appeared in the *News* in connection with the statement that there is not a single medical school within the confines of the State of North Carolina. He speaks most highly of the Leonard Medical College, located at Raleigh, N. C., and also volunteers the information that it was organized in 1882, that it has a corps of 10 professors, and that from 60 to 75 students are graduated yearly. While the correction is cheerfully made, and acknowledgments tendered to our correspondent, it is to be regretted that North Carolina must descend from the proud pedestal upon which our imagination had placed her. A city, to say nothing of a State, without half a dozen actively working schools of medicine annually turning out scores of young practitioners to battle unsuccessfully against the dispensary evil, is a *rara avis* deserving of our highest admiration and respect!—*Med. News.*

[We were not aware that the Leonard Medical College (colored) ever graduated so large a number; and, at the risk of having the Old North State fall yet another degree in the estimation of our esteemed contemporary, we will state that there is still another medical college in this State—the North Carolina Medical College, at Davidson.]

The Tilden Company, New Lebanon, N. Y., and St. Louis, Mo., have just issued a very handsome booklet, profusely illustrated, relating in a most entertaining vein the experience of a prominent physician with Tilden's Elixir Iodo Bromide of Calcium Comp., in the treatment of syphilis, etc., in India.

The account contains valuable information regarding the habits, superstitions, etc., of the natives. Copies will be furnished upon application to them, if this JOURNAL is mentioned.

THE 12TH INTERNATIONAL MEDICAL CONGRESS.—A party of Chicago physicians have organized an excursion, under the auspices of the well-known tourist agents, Messrs. Cook & Sons, with a most delightful itinerary which takes in the Congress.

Information as to the cost of the trip and other matters can be had by addressing Messrs. Thos. Cook & Sons, New York.

THE SEMI-CENTENNIAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.—The semi-centennial meeting of the American Medical Association, which will be held in Philadelphia on the 1st, 2d, 3d and 4th of June, 1897, bids fair to surpass in the character of the entertainment, the scientific papers and the number in attendance any meeting which has heretofore been held. The committee in charge have been able to obtain large and roomy places of meeting for the general meetings and the Section meetings all within a single block and within very short walking distance, or immediately adjacent to the largest and most comfortable of the Philadelphia hotels.

For the week preceding and following the meeting the Committee of Arrangements have also arranged for clinical courses, which will be open without charge to all physicians who may visit the city at that time. These courses cover every branch in Medicine and its specialties, and will afford visitors the opportunity of seeing the active clinical work of all the great teachers of Philadelphia, which is now, as it has been for so many years in the past, in every respect the medical centre of the United States.

DEATH-RATE FROM DIPHTHERIA.—During the past year the death-rate from diphtheria at the Municipal Hospital was 22.2 per cent. Of the 869 cases of diphtheria admitted to this institution during 1896, 553 received the antitoxin treatment in addition to other approved methods of treatment, and of these 142 died, a mortality of 25.67 per cent. Three hundred and sixteen other cases were treated by remedies other than anti-

toxin, and of these 51 died, a death-rate of 13.29 per cent. At first glance it would appear that this 12.38 per cent. difference in the death-rate demonstrates a decided failure in the serum treatment, but from the statement of the physician in charge of the hospital, Dr. William M. Welch, that a scientific test of antitoxin was not attempted, it may be inferred that the cases not receiving antitoxin were those of a character so mild as not to require it, and, therefore, of a low mortality. On the other hand, assuming that the severer cases received the serum injections, with a death-rate of over 25 per cent. as the result, does it not seem that the antitoxin has failed to materially improve the outlook in dealing with this dangerous malady?—*Medical News*.

Dr. James A. Ethridge, a popular and well-known physician of Macon, died March 14th from the effects of chloroform. Dr. Ethridge was about to undergo an operation for fistula, and almost at the first inhalation of the chloroform his pulse and respiration ceased, and every effort to resuscitate him failed.—*Atlanta Med. & Surg. Jour.*

DOCTORS HELD FOR BLACKMAIL.—It is reported that Dr. J. W. Pendergast, Health Officer of Cincinnati, and Dr. Olimerick, after a hearing before Magistrate Winkler, lasting nearly a week, have been bound over in \$1,000 each to the grand jury on the charge of blackmail preferred by H. N. Fraser, of the Fraser Tablet Co. of New York. The Tablet Company charges that the Health Officer at first demanded \$10,000, claiming that the tablets were impure or short in strength, and that the Pure Food Commission would consequently prohibit their use by the Health Department. This fact, on being noised abroad, would work the company injury. The sum demanded, according to the Tablet Company, was finally reduced to \$2,000. The company denied that the tablets were not as represented, and caused the two doctors' arrest.—*Med. News*.

MEDICAL BADGES.—Russian doctors are hereafter to wear as a sign that they are legally qualified to practice, a little *zuak* or badge, a silver oval plate an inch and a half long by an inch

wide, on which is a design of two intertwined serpents. The object is to increase the safety of the wearer in the less civilized parts of the country. This is according to the *New York Sun*, and "must be so." Chicago physicians have had similar badges for about one year.—*Ex.*

THE CONSOLIDATION OF TWO GREAT MEDICAL SCHOOLS.—A measure which has created much surprise in the profession, but which, it appears, has been in contemplation for some time, was made public on April 8th, when it was announced that the State Board of Regents, at a meeting held in Albany on that date had effected the consolidation of two of the principal medical schools of New York City, namely, the Medical Department of the University of the City of New York and Bellevue Hospital Medical College. The name of the consolidated institution will be the New York University Bellevue Medical College, and it is hoped to make it one of the largest and most thoroughly equipped medical schools in the world. It is stated that at the beginning it will have an annual income of about \$160,000, and the belief is expressed that this will from time to time be increased by gifts and legacies. The first formal step in the matter of the union was taken on March 17th, when the University corporation adopted a resolution inviting the faculty and trustees of Bellevue to join in the consolidation of their institution with theirs, upon a plan similar to that recently adopted when the University Medical College placed itself under the immediate care of the University. It is probable that the project of consolidation was hastened by the fire which two months ago partially destroyed the Bellevue building, which stands within the grounds of Bellevue Hospital, on city property, the lease of which expires in two years. Pending the refitting of the building the college was transferred to the Carnegie Laboratory, belonging to the Bellevue School, and, in anticipation of the expiration of the lease, a site for a new building was purchased. This adjoins the Carnegie Laboratory, and has a frontage of 75 feet on 26th Street and 150 feet on First Avenue. On this lot, it is announced, a handsome and commodious structure will be erected, and, in addition, the University Medical College building, which stands near-by, will be en-

larged by the addition of two stories, making it eight stories in height. The manner in which the various professorships in the consolidated institution will be arranged from the faculties of the two schools has not yet been made public, and probably has not as yet been fully determined upon.—*Boston Med. & Surg. Journal.*

NECROLOGY.

From recent deaths among the Profession.

Dr. James Spicer, aged 35, died at his home in Goldsboro, N. C., April 5, 1897.

Dr. G. Allen Kinard, at Pine Grove, S. C., March 29, 1897.

Dr. Ernest Brand, so well-known in connection with the cold bath treatment of typhoid fever, in Stettin, Germany, March 8, 1897.

Dr. John C. Terrell, aged 80 years, at Philadelphia, March 28, 1879. He was a native North Carolinian, and graduated from the University of Pennsylvania in 1840. He practised in this State for a number of years, but later lived in the North for business reasons.

Dr. Chas. M. Shields, aged 30 years, at Richmond, Va., April 18, 1897. His death was caused by tuberculosis, contracted from a patient who was under his care.

Reading Notices.

TREATMENT OF FEVER.—In selecting the means for the reduction of fever in disease efficiency and safety should go hand in hand. It matters not how rapid and energetic a drug may act, if it be not safe and free from depressing effects, its field of usefulness must of necessity be greatly limited. Among the medicaments which synthetic chemistry has placed at the disposal of the physician, Dr. Geo. F. Taylor, of Baltimore (*Medical Sentinel*, February, 1897), awards the first place to Phenacetine. He has found it beneficial in almost all cases of high temperature. In cases of la grippe, combined with quinine and monobromated camphor, it has no equal in his experience. It is safe and reliable, and he has never seen the slightest untoward effect upon the heart following its administration. He has used it continuously for nearly eight years, and it has become one of those very few drugs which constitute the reliable materia medica of the long-experienced practitioner.

SYR. HYPOPHOS. CO., FELLOWS.

Contains the Essential Elements of the Animal Organization—Potash and Lime;

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It Differs in Its Effects from all Analogous Preparations; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic, and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; hence the preparation is of great value in the treatment of mental and nervous affections. From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that **no two of them are identical**, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the strychnine in solution, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hypophos. Fellows."

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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Prof. of Practical Chemistry
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centieth Year.

MAY 20, 1897.

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NORTH CAROLINA MEDICAL JOURNAL.

PUBLISHED SEMI-MONTHLY AT \$2.00 PER ANNUM.

Robert D. Jewett, M.D., Editor.

[Entered at the Post-Office at Wilmington, N. C., as Second-class mail matter.]

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If not already familiar with Taka-Diastase, we shall consider it a special favor if you will write for our monographs, reports of cases, reprints of articles, etc.

SPECIAL NOTE: Taka-Diastase should not be massed, but administered either in powder, in capsules, or the liquid form: and at the beginning or during the early part of the meal.

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NORTH CAROLINA MEDICAL JOURNAL.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND
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NO. 10

Original Communications.

PATHOLOGY AND TREATMENT OF INTERNAL HÆMORRHOIDS BY LIGATURE, WITH CASE.*

BY WM. H. PARKER, M.D., Richmond, Va., Professor of Gen-
ito-Urinary and Rectal Surgery in Summer School of Med-
icine, University College of Medicine, Ex-resident .
Surgeon Richmond City Hospital, Etc.

THE disease commonly called piles is the most common of all human ailments, except the ordinary "cold." Yet there are unfortunately few diseases in which, as in piles, the surgeon is able to assure the patient in every case that he can positively be cured. Piles have their origin in the over-distended and varicose hæmorrhoid vessels, principally the veins modified by the mechanical violence to which their position exposes them. The vessels are very liable to become varicose—first, from the fact that valves are absent in the veins; second, because of the erect position; and third, because of the peculiar office of the rectum.

The veins immediately around the verge of the anus form a continuous network by anastomosis with the hæmorrhoidal plexus of the rectum within. These veins anastomose even in the substance of the sphincter muscle. Therefore from the

*Read before the Richmond Academy of Medicine and Surgery, April 13, 1897.

character of the veins in which they take their origin, there is no distinction between internal and external piles.

Now these veins have no valves, and, consequently, whenever the portal circulation is sluggish or an abdominal tumor, ovarian, etc., or pregnancy exists, we have a stagnation of the blood and a dilated and varicose condition of the hæmorrhoidal veins—a condition similar to varicose veins of the lower extremities or a varicocele.

Owing to the constant erect position is it a matter of surprise that we should find this varicose enlargement with thickened walls and pouch-like dilatations?

Owing to various causes, as constipation, straining at stool, etc., this stagnation and congestion leads to an exudation, and the connective tissue surrounding the veins becomes infiltrated, and we have the morbid anatomy of the tumor. It is a veritable tumor—one that can be seen, is well defined and can be handled, is firm to the touch, and grows by plastic infiltration.

Internal hæmorrhoids are of a much more serious nature in so far as the health of the patient is concerned than external hæmorrhoids.

French surgeons have not accepted as true the causes of piles, ordinarily spoken of, but have diligently sought for a true predisposing cause in the anatomy and physiology of the rectum.

By numerous dissections, Prof. Verneuil thinks he has discovered that cause in the peculiar distribution of the veins and the course they take in the coat of the rectum a few inches above the anus. He considers that the superior hæmorrhoidal veins only communicate with the portal system and solely form the internal piles; external piles being formed by the inferior and middle hæmorrhoidal vessels which connect with the general venous system. That the superior hæmorrhoidal vessels commence at the upper border of the external sphincter and pass up under the mucous membrane to a certain height and perforate the wall of the gut. Where they perforate the walls of the rectum, he claims that they pass through veritable muscular buttons, which have the power of contracting and causing stasis of the blood in the vessels.

Verneuil affirms they are not only the passive but the active

causes of hæmorrhoids. The practical outcome from the above anatomy and physiology by the French author is very important, viz: That for the cure of the great majority of internal piles, nothing is required but the gentle and thorough dilatation of the internal sphincter muscles. The point chiefly insisted upon is that the dilatation should be thorough and include both sphincters. Allingham shows the fallacy of this method of treatment—first, from the fact that the absolute separation of the portal and general venous circulation cannot be true; second, from the fact of Verneuil having injected the superior hæmorrhoidal veins from the portal, thus forcing the injection in a direction opposite to the natural way; third, because he makes no allusion to the part that the arteries take in the formation of a pile; and lastly, the fact that the muscular buttons would really act the part of valves to support the column of blood to the liver, and in place of causing stasis, prevent it by opposing regurgitation in congestion of the liver.

The medical treatment of piles, I think, does not receive the recognition it deserves in the works on rectal diseases. Indeed in some works, as Allingham, it receives no mention at all. Matthews, in his work, says he does not believe that hæmorrhoidal diseases can be cured in any other way than by operative procedure; yet Thomas, in the *London Lancet*, formulates a set of rules for the medical treatment of piles, claiming that a strict observance of them will cure the great majority of cases which have now to be operated on. He refers to both varieties, but more particularly to the internal.

Dr. T. Lauder Brunton, in the *British Medical Journal*, on the treatment of piles, says: First, keep the liver in a condition to maintain a free supply of food through it. For this purpose insist on moderation in food and stimulants. Occasional small mercurial purgatives, followed by a mild saline, alum in small doses and castor oil do good. Exercise is useful in keeping the liver free, but this exercise must be of a certain kind. Both blood and bile have a tendency to stagnate in the liver; but this stagnation is lessened by the liver being rhythmically squeezed between the diaphragm and abdominal muscle. Brisk horse-back exercise, either trotting or cantering, or touching

the toes with the fingers, the knees being kept straight, is excellent exercise. A regular action of the bowels is of the utmost importance. The best time ordinarily for emptying the bowels is after breakfast, but if the piles have a tendency to come down, it is better to empty them every night before going to bed. The patient should take with him a bottle of Hamamelis and some prepared sheep's wool. A small pledget of the wool should be inserted sufficiently to be grasped by the sphincters. This acts locally as a support to the piles, the Hamamelis being healing and stopping hemorrhages quickly.

The treatment of piles by the ligature is a time-honored surgical procedure.

It owes its present prominence to Allingham, and is often described as his operation. In the way now generally performed, the name is correct, though the treatment by ligature is very old. In the opinion of Allingham, of England, Wyeth, Mathews and others, in this country, it is the safest, easiest and best operation.

The following case will illustrate the method:

Mr. B., white, age 35, consulted me in October, 1896. Had been a sufferer with piles for years. In January of '96, had been operated on by injection of carbolic acid only to leave him worse off than before. He complained of severe pain in his rectum all the time with protrusion of a large mass whenever he had an action. On examination, a large mass protruded on bearing down, consisting of four large vascular tumors. Patient was weak and anæmic from repeated losses of blood at each defecation. He was told that an operation would cure him, to which he consented.

Preparatory treatment consisted of 2 C. B. pills followed by a dose of epsom salts the next morning and repeated again the following morning with an enema before the operation. Chloroform was administered and patient placed on his back with legs drawn up and held by an assistant. The sphincter was then thoroughly dilated with my thumbs and the bowel everted. Each tumor was seized with a pair of forceps and pulled down forcibly. A curved needle with a double thread was run through the base and clipped. The mucous and muscular coats were

cut around the base and ligature tied as tightly as could be drawn. In this way there is no pain after the operation. The piles were then clipped off leaving sufficient base to hold the ligature. By clipping the base, you will hasten the slough and your patient makes a quicker recovery. Each tumor was treated in the same way. The rectum was then irrigated with a solution of bichloride 1-4,000, stumps replaced and a packing of gauze inserted. Dressings were retained by a T bandage and patient put to bed and given a hypodermic of morphine and atropine.

That evening he had retention of urine which was relieved by a soft catheter and patient spent a comfortable night.

On third morning bowels were moved by enema of warm water without any pain or protrusion and bowel irrigated with an antiseptic solution. Patient was ordered to take wine-glass of Apenta water every morning, which acted admirably, and the following prescription given:

R—Hydrarg. Chlor. Corros. gr j
 Tr. Gentian Comp.
 Tr. Cinchonae a a f $\frac{3}{4}$ ij
 M Sig. teaspoonful in water 3 times day.

Bowels moved every day, ligature came away from 7 to 10 days and patient was discharged as cured in two weeks.

Society Reports.

NEW YORK ACADEMY OF MEDICINE

SECTION IN ORTHOPEDIC SURGERY.

Meeting of April 19, 1897.

The Non-Cutting or Unbloody Operation of Lorenz for the Re-Position of Congenital Dislocation of the Hip: This paper, by Dr. G. R. Elliott was chiefly a description of the different steps of

the procedure, viz. ; 1. The Reduction, or bringing the head to the level of the acetabulum. 2. Re-position, or wedging the head into the acetabulum. 3. The formation of a solid acetabulum by manipulation and allowing the child to walk about with the thigh fixed by plaster of Paris at about ninety degrees of abduction. The three steps of the operation were performed under chloroform on a patient, a boy twenty-two months old, by Dr. Elliott before the members of the Section.

Dr. T. H. Myers reported the successful performance on a similar patient, three and a half years old, of Paci's method of manipulation, viz. ; forced extention, flexion and then strong traction downward. There were telescoping, lordosis and all the other signs of dislocation, and one-half inch of shortening. A good deal of force was used in order to cause inflammatory adhesion. The limb was immobilized at thirty degrees of abduction, the spica was changed several times in the following six months and the girl was then allowed to go about with a walking brace and a high shoe on the sound side. She walked with a splint walk when the apparatus was removed. The limbs remain at a nearly equal length.

Dr. W. R. Townsend said it would be a great advance if these cases could be cured without a cutting operation. In his experience and observation open methods had proved unsatisfactory. The patients continue to walk lame and dislocation is liable to recur. He thought the superiority of the new methods could not be taken for granted at once. He had treated one patient by the Paci method.

Dr. R. H. Sayre had seen but one patient in whom the hip could be distinctly reduced by Bigelow's manipulation but he had not been allowed to operate. In this case it was necessary to abduct the limb much more than had been done in the patient treated this evening. He had not achieved brilliant success by operating. In one case after the child had been walking for six months an abscess developed in or near the joint.

Dr. R. Whitman had operated four times by Lorenz's method and had seen great advantage from the application of twentyfive or thirty pounds of traction for three weeks before the reduction. It facilitates bringing the head down to the level of the acetabulum which at times requires a great deal of force.

Dr. H. L. Taylor also thought these patients should have extreme forcible traction before the operation, in order to overcome more thoroughly the muscular contraction. Operative treatment had not been so far very encouraging and he believed that this procedure held out a good prospect.

Dr. Whitman said that a point in its favor was that mothers would consent to it when they would not consent to a cutting operation. Moreover it did not confine the patient in a hospital or even in bed.

Dr. Elliott said Paci's and Lorenz's procedures were entirely distinct. Paci aimed to build up a nearthrosis in the vicinity of the joint. Frequently the head did not pass into the acetabulum. His manipulations were first flexion to the physiological limit, then abduction, then lateral rotation and slow extension, then plaster of Paris for three months and then careful walking with an apparatus. In this original procedure of Lorenz, however, if entrance of the head was not obtained he deemed the case a failure. It was this re-position plus loading the weight of the body on the bone which made the operation. The acetabulum was there, but rudimentary. The parts immediately began to develop when the bone was replaced. The presence of the bone stimulated the growth which had been absent. The force required in traction was sometimes very great.

Achillo-Bursitis Anterior:—In a paper on this subject *Dr. S. Lloyd* stated that the affection was the result of traumatism from tight shoes, shoes wearing the heel, bicycle riding, jumping and fractures; or the result of septic, tubercular, gonorrhœal or rheumatic infection. The symptoms were pain under the tendo Achillis on standing and walking and in the plantar region, swelling on the outer side of the tendon, hyperidrosis and extensive inflammation of the surrounding tissues. In the treatment cold and warm baths, the application of tincture of iodine and mucurial inunctions were useless. Traumatic cases required prolonged rest and pressure, and cases having their origin in infection should be treated by incision curetting and drainage.

Dr. Whitman presented a case of this affection in a woman of thirty-five years who was on her feet from six A. M. till eight P. M. The symptoms, of one month's duration, had been pain in the heel and in the metatarsal joints and on pressure of the

os calcis. There was slight thickening. He says these cases often become chronic and acquired weakness of the arch, or flat-foot. Rest should be enforced. Acute cases required a plaster of Paris bandage and chronic ones a brace to arrest the function of the joint.

Dr. Sayre had seen cases among athletes especially hurdle racers who in making a leap land on their toes.

Dr. Myers had personally suffered an attack of this kind after a long bicycle ride. He could only walk with ease by everting the foot. In plaster the foot should be placed at right angles to prevent the trouble from becoming chronic.

Dr. V. P. Gibney said that before the pathology was clear these cases used to be called rheumatism of the heel. The region of the tendo Achillis had not been clinically explored. A counterpart is found in the advance in our knowledge which enables us to recognize scurvy in the swelling of joints in children who were called rheumatic.

Selected Papers.

THE USE OF INTRAVENOUS SALINE INJECTIONS FOR THE PURPOSE OF WASHING THE BLOOD.*

BY H. A. HARE, M.D., Professor of Therapeutics, Jefferson
Medical College, Philadelphia.

I DESIRE to call the attention of the society to-night to the use of intravenous injections of saline fluid for the relief of threatened or present toxemia arising from renal disease, diabetes, or any acute infection, whether due to the specific micro-organisms which cause the eruptive or other fevers, or to septic infection. My own experience is limited to its use in uremia and in toxemia associated with gangrene.

*Read before the Philadelphia County Medical Society, March 24, '97.

The use of intravenous injections for the relief of the collapse following severe hemorrhage or injuries, is too well recognized as a valuable remedial measure to need any attention at this time. Surgeons resort to it or to hypodermoclysis, or the injection of saline fluid beneath the skin, quite frequently, and these means of resuscitation have practically displaced the obsolete practice of transfusion of blood or of milk. I believe that both plans are resorted to less frequently than is well, particularly the intravenous injections. The fear of air-embolism restrains some, I think needlessly, and the opening of a vein is as timorously performed now as it was boldly done sixty years ago.

The use of intravenous injections for the purpose of washing the blood is, however, an entirely different matter, one of very much more recent employment, and exceedingly popular with physicians on the European continent, particularly in France. Within the last year almost every French journal has contained accounts of cases of toxemia treated with more or less success in this manner, and the results have certainly been such as to deserve wide trial and careful study. It is now a number of years since Stadelmann proposed and used the intravenous injection of sodium carbonate for the relief of diabetic coma. This proposition, however, rested upon quite a different basis from that I am now discussing, namely, to antagonize chemically the acid which he believed to be in the blood as the cause of the diabetic coma. We now know that little, if any, permanent benefit results from such treatment, but that temporary improvement sometimes occurs. Thus Von Noorden speaks in glowing terms of one case of this character in which very good results ensued. Whether the good results that have been recorded resulted from the chemic effect, or from washing the blood of impurities, is doubtful, but I am inclined to believe that the fluid entering the vein is responsible.

Before stating my own cases I shall cite a few illustrative cases from French and German sources:

Maygrier, apropos of a case of placenta prævia successfully treated by three intravenous injections (amounting to six liters) in one evening, says the reservoir of the solution is placed from half a meter to a meter above the vein, and all air is carefully

expelled from the tube and needle before the latter is introduced. Should the reservoir be lowered by mistake, blood may enter the canula, clot there, and a clot be injected when the reservoir is raised. If any blood enter the canula the instrument must be withdrawn and emptied, and the operation recommenced. The entrance of a small quantity of air does not matter.

Lejars exhibited a young man whose ruptured intestines he had sutured after peritonitis was fully established, and who recovered after receiving twenty-six liters of saline solution in intravenous injections; and gave details of three other remarkable cases of surgical infection cured in a similar way. He said that, always providing the kidneys are sound, each injection even in desperate cases may be attended with unhoped-for success, and should be generally adopted. Grave and threatening infection may be arrested or attenuated by one large injection, but it will generally be necessary to continue the lavage for some days, to use many liters of artificial serum, and to supplement the intravenous injections by hypodermic injections of moderate quantity every two hours.

Chasserany reported that he had found by experiment that voluminous injections (intravenous, intraperitoneal, or subcutaneous) prevent the intoxication of rabbits by strychnin, provided they are made before the onset of the nervous symptoms, but Delbet was not able to detect the alkaloid in the urine or saliva of dogs poisoned by strychnin, and in one case only of eight was the effect of the poison modified by the injections. A dog of forty-three kilos received three milligrams of strychnin sulphate; then, in eighty-five minutes, 910 milligrams of the saline solution; all symptoms ceased and the animal recovered. In 105 minutes from the beginning of the injection the enormous quantity of 532 grams of urine had been passed. The animal was killed some days later by the same dose of the poison in twenty-one minutes. Further experiments proved that the injection of even large quantities of the saline solution did not cause trouble when the arterial pressure was normal, or even when it was artificially raised by atropin; this method may therefore be employed in certain pathologic elevations of pressure—for example, eclampsia. Pressure lowered by copious

hemorrhage is rapidly restored by the injection of even a less bulk than the blood lost, but not so rapidly by the hypodermic as by the intravenous method.

Tuffier has practiced intravenous injections, both for hemorrhage and for toxemia, in fifty cases, including two cases of tetanus (after preliminary bleeding), and found that the first effect was to restore the normal arterial pressure and diminish the frequency of the heart's action; the second to cause diuresis.

Proben, in a case of eclampsia, injected two quarts of normal saline solution; the urine had been almost totally suppressed, with 100 per cent. of albumin, but within twenty-four hours the woman passed 109 ounces.

Berlin reported to the Société de Chirurgie the case of a woman who, three days after vaginal hysterectomy, manifested such violent symptoms of sepsis that recovery seemed absolutely impossible. The belly was distended and painful, and there was very marked subnormal temperature and frequent vomiting. On the fourth day the patient seemed to be about dying, whereupon Berlin gave an intravenous injection of a little over a pint of artificial blood-serum, and shortly afterward repeated this injection, using not quite two pints. Marked cyanosis and increased gravity of symptoms followed at once but shortly there was decided improvement and the patient recovered, being completely convalescent by the twelfth day of her illness.

Segond stated that he had used injections of artificial serum for four years in all major operations, and had been able to save many cases of severe hemorrhage by this means. He also stated that in cases of severe sepsis these injections were potent.

Michaud* details fifteen cases in which this treatment was adopted, all with septic peritonitis followed operation. Of these, five recovered. In one case, the patient being in imminent danger, 1000 grams of artificial serum at 39° C. were injected, causing an immediate rise of the temperature of four degrees, and a slowing of the pulse. The serum was used during three days, at the end of which time patient was out of danger, and recovered. A similar result was obtained after

ablation of the Fallopian tubes, several injections being used, together with irrigation of the peritoneum. The artificial serum of Hayem, or simply sterilized saline water, was used. Various accidents were noted—vomiting, pain in the side, plethora, and disturbance of the cerebral circulation. No later complications were observed. The method is excellent, but other means—drainage, irrigation, re-opening of the abdominal incision, and the free local application of ice—are to be used concurrently. Monod has had seven similar cases, with three recoveries. The effects were beneficial, even in the cases that ultimately terminated fatally.

Bovet and Huchard first review the literature as to the employment of subcutaneous injections for toxemia, and then report an interesting case of pyelonephritis occurring in a married woman who had been a sufferer for a long time from a mild albuminuria. The patient became seriously ill from general toxemia; fever developed, the urine became scanty and albuminous, the tongue was dry, and a large number of casts were found in the urine. The pulse rose to 130; the respiration to 28. Under these circumstances it was considered wise to inject a considerable quantity of normal salt-solution.

Between April 20 and October 15 the patient received injections subcutaneously twenty-five times and by the rectum about twenty times. The quantities injected under the skin varied from three ounces to two quarts a day, and the urine increased correspondingly with each large injection.

A second case is reported in which there was uremia with general anasarca. As a result of this treatment the conclusion is reached that hypodermoclysis is an exceedingly valuable procedure.

Usually as the injection is given the patient at once shows signs of improvement, but in from two to thirty minutes he develops a severe rigor, with a strong rapid pulse, followed in half an hour by great flushing of the skin and then profuse sweating, with greatly increased urinary secretion. Sometimes quite a marked febrile movement takes place. Several hour afterward the patient reports himself as greatly improved.

My own cases are as follows:

A man of sixty-odd years developed acute toxemia, with high

fever and coma, owing to the sudden extension up the leg of gangrene of the toes. At first he could only be roused by speaking sharply to him; later he became still more comatose. His muscles became spastic. Twelve hours after the onset of the toxemia I injected about one quart of warm normal saline solution into a vein of the arm in the course of an hour. The man developed a severe rigor, then broke out in a profuse sweat, and next morning, ten hours afterwards, was perfectly conscious, said he felt first-rate, but later in the day became comatose again and died. He was doomed from the first because of his gangrene.

The second case is that of a man with chronic parenchymatous nephritis, who came into the hospital with twitching of his muscles and semi-comatose. He had passed scarcely any water for several days. He had had constant headache for six months and was markedly edematous from head to foot. He was too weak to be bled, or to be purged, or to receive pilocarpin, and seemed too ill for a sweat from a hot pack. I injected one quart of hot saline solution into a vein of his arm. He also had a mild rigor followed by a sweat, and in three hours thirteen ounces of urine were obtained from his bladder. The next day he said he had no headache, no dizziness, no pain anywhere, and felt no discomfort. His dropsy was not increased. Ten days later, as his uremic condition seemed to be returning, I repeated the injection, with similar results.

The apparatus which I use is constructed as follows, and embodies all that is necessary for the treatment of these cases:

A glass container such as is used for irrigation-purposes in antiseptic surgery is set in a frame in order that it may stand on a table rather than be hung against the wall. To the bottom of this container is attached four or five feet of red Para rubber hose, and in the end of this rubber hose is inserted a plain glass cannula; a clip is placed upon the hose in order that the flow may be controlled, and the cannula, with the tube that has been attached to the blood-vessel, joined to the tube running from the irrigator at the moment when they are both completely filled with liquid, so that no globule of air will be contained in the tube.

We may next consider the best fluid to use. The following

statement by Edes embodies my views exactly. I shall hereafter use the formula described, although in the cases just detailed I had to use ordinary saline solution instead. According to Edes:

"A modification of Ringer's fluid has been in constant use in the Massachusetts General Hospital for about two years. The formula is 0.1 gram CaCl_2 , 0.75 gram KCl to 1000 cu.cm. normal salt-solution. This fluid has been used chiefly for intravenous infusion, by means of a cannula, in quantities of from 500 to 200 cu.cm. Its use in the Massachusetts General Hospital started from a suggestion made to the writer in 1894 by Dr. William H. Howell, formerly Assistant Professor of Physiology in the Harvard Medical School, who was then repeating some experiments of Sydney Ringer. One set of these experiments showed that calcium salts are essential to the clotting of blood. Another set consisted in passing different fluids through an isolated heart (frog's), and observing the character of the beats and the length of time the beating was sustained by such fluid. Blood-serum sustains the beats well and for a long time. A solution of the albumins of the serum without salts does not sustain the beats well, nor does a simple normal salt-solution. The addition of a calcium salt alone to the salt-solution causes strong beats, which, however, are too prolonged, and therefore inefficient. The addition of a small amount of potassium chlorid corrects the character of the beat, and this combination, normal salt-solution plus calcium plus potassium, will sustain heart-beats as well and as long as blood-serum.

"The idea lay very near to supply such a fluid to the circulation in cases of extensive hemorrhage, in place of using simple salt solution, which, experimentally at least, does not sustain the heart so well. Ringer's fluid is 100 cu.cm. of a .75-per-cent. solution of sodium chlorid saturated with calcium phosphate, adding 1 cu.cm. of a two-per-cent. solution of potassium chlorid. This is not convenient for use in surgery, however, because the boiling necessary for sterilization precipitates a phosphate of calcium. This might possibly be evaded by sterilizing the ingredients, but in the Massachusetts General Hospital it was found more convenient to use the soluble

chlorid of calcium. The fluid can be made up in Florence flasks, which can be boiled and the fluid kept sterilized for accident work, and warmed for use by placing in a pail of hot water.

"The difficulty of comparing the action of Ringer's fluid with that of salt-solution is extreme, as the cases where either is used show such tremendous variations in prognosis independent of any treatment.

"It seemed to the author when he first used the fluid intravenously in accident cases in the winter of 1864-95, that the effect was more permanent than that of salt solution. Two or three remarkable recoveries from hemorrhage and from shock have occurred with, and possibly because of, its use. It is possible that a modification like that of Dr. Locke, containing 0.3 gram calcium chlorid to the liter instead of 0.1 gram, as used in the Massachusetts General Hospital, is more advantageous; and again it is possible that one percentage may prove better adapted for intravenous use and another for rectal. It is much to be desired that Ringer's fluid should receive an extensive trial, and if possible in such way that its value compared to that of simple salt solution may be estimated."

I wish in conclusion to strongly urge the use of this method of treatment in the toxemias I have named. I am confident it is well worthy of wide application, and while not a serious operation it offers probably the only chance for a series of conditions almost always fatal. The recovery of a clear mind, and the setting aside of oncoming coma, are only to be seen to have this method appreciated.—*Med. and Surg. Reporter.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and any remittances by P. O. Order, Draft or Registered Letter, made payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

THE ASYLUM CASES.

It is a source of gratification to know that the evil day has at least been postponed, for the Supreme Court has decided that the present incumbents are entitled to their offices until the expiration of the term for which they were elected, which will be some two years hence. In the meantime, Dr. J. A. Faison and Dr. R. S. McGeachy, assistant physicians in the asylum at Raleigh, have resigned. We regret to learn that Dr. Faison will remove to Bennettsville, South Carolina, where he will enter into private practice. These vacancies would afford good schools for those gentlemen who are to succeed to the superintendency of the asylums, and so would be prevented the misfortune of placing the management of these institutions in the hands of perfectly inexperienced men. But it may be possible that the appointing powers have their eye upon men of experience for these offices. Dr. Eugene Grissom, who was

for a number of years Superintendent of the Raleigh Asylum, and is at present an acting assistant physician in the State Asylum at Pueblo, Colorado, intends returning to this State. Can it be that there is some connection between his return and the appointing of new officers for the asylums?

UNIVERSITY OF VIRGINIA.

We learn from the *Virginia Medical Semi-Monthly* that in the New York Court of Appeals the motion for a re-argument of the celebrated Fayerweather will case was denied, and thus the \$2,500,000 residue of the estate will go to the twenty colleges named in the will. The University of Virginia will receive the very comfortable sum of \$150,000. All friends of the University will rejoice at its good fortune.

SEMI-CENTENNIAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The profession is astir in Philadelphia getting ready for the jubilee meeting of the National Association. The various committees in charge of the preparations have been very busy arranging an interesting program, and a pleasant and profitable time is assured those who attend.

An hour on the second day of the meeting has been set aside for the anniversary exercises to commemorate the founding of the Association in Philadelphia in 1847. Dr. Davis will read a short paper giving an account of the organization of the Association and how the objects, for which it was founded have been attained. To illustrate the success attained through the influence of the Association, the Presidents of the various State Societies and the Presidents of State Boards of Medical Exam-

iners have been invited to be present and escort Dr. Davis to the rostrum. There will be two or three other short addresses in addition to that by Dr. Davis.

There have also been arranged for the weeks immediately preceding and following the meeting, courses of clinical lectures in the various teaching institutions in the city. These will be without charge, and will prove a source of great interest and profit to those who desire to spend a week or two in the city, the addresses of good boarding houses, where the rates of board are less than at the Hotels, have been obtained and will be furnished by Dr. G. E. deSchweinitz, 1401 Locust street.

SOCIETY NOTES.

The coming meeting of the Society promises to be full of interest, and it is hoped there will be a large attendance. There will be ample accommodation, and good service by the hotel. Morehead is famed as a summer seaside resort and physicians in the interior would do well to make a special effort to visit it under such favorable conditions. The regular summer excursion rates will be in force on the different railroad lines. These tickets will be sold, however, only from the more important points, therefore the special rates usually allowed the Society will be in force. The excursion rates will be somewhat cheaper and more desirable in that tickets will be good until October 31. It is time that the titles of all papers were in the hands of the Secretary, and those which are not in hand by May 31, cannot have a place on the program.

There will be an election to fill vacancies on the Board of Health. The terms of all members of the Board expire at this time, the Legislature of 1895 having amended the law by making the term of office for all members of the Board two years, and while the Society formerly elected six members and the Governor appointed three, now the Society elects only

four and the Governor appoints five. While we must be in doubt, therefore, in regard to the complexion of the next Board, the Society must select its best men for this work—those who will take an interest in it, and preferably those who have had experience in this department. Those who have noted the energy and executive ability of the present Secretary of the Board and observed the progress made by the Board under his guidance, for the Secretary is, of necessity the executive officer, will agree that it is important he be retained to carry on the work in which he has taken so great an interest.

The Society will, at this session, vote on an amendment to the Constitution providing for a return to the old plan of electing all seven members of the Board of Examiners at the same time. The plan of making the Board continuous by the biennial election of a portion of the Board has been tried for several years, and does not appear as satisfactory as the old plan. While the present arrangement assures the presence on the Board of a majority of members who have had experience, we believe the nature of the work is such that experience is not so much needed for its efficient performance as faithfulness and an earnest interest in the work of the Board. There is in the old plan more to stimulate the interest of the members, for there was then an individuality connected with each separate Board which has been lost. Then each member could look at the progress made during the existence of "his board" comparing the work with that of the other boards. Then there is the ambition of a newly elected Board to do as good or better work than did the preceding. Also there is a feeling of fellowship engendered between the members of a board who are to work together for six years, which will prompt more regular attendance on the part of individual members, that each may feel he has done his share in the work accredited to his board. We think the change to the present plan was unwise and hope the amendment will be adopted.

COPY OF A PAPER PRESENTED TO THE BOARD OF EXAMINERS AT A RECENT MEETING.

1st. Give the chief intestinal antiseptic and necessity for use.
1st. Carbolic acid. 2nd. Iodine.

Dose carbolic acid dose gr ss-ii well diluted

Iodidide Pot " " V-X

Iodine " " ii-V

Their chief uses, are for carbolic acid is where there is ulceration. Iodides are used in glandular diseases and colica Pictorum or lead colic

2nd. Give chief Intestinal antithelment with rules of caution if any to be observed in administration

The chief is antithelmentic is Santonin Pomgranate. Pepo. The only precaution is not to give in poisonous doses and be shure the child is wormy.

3. What is the Therapeutic uses of Guaiacol, This preparation is not much used in medicine and is not reconised or used much in medical profession, It is used to coat over the mucos membran in inflammation etc of Stomach.

4. What is the use and action of Salol? Salol is composed of carbolic acid 40 parts and Salecylic acid 76 parts. It is an antiseptic astringent and used mostly in gout and Rheumatism and intestinal affections.

5. Dose of Pilocarpine gr 1-60-1-30 It is a cardiac Stimulant and used when heart is weak. It is used only in cases of emergency.

6. What Remedies are indicated in disuria. There are Several remedies used in this disease or trouble and the treatment depends upon the cause, which are lengthy and tedious to treat according to the different causes and indications I can give minute. But don think you want me to.

7. What is apiol and its uses. It is chloriform. It is used in surgical operations. Puerperal eclampsia epilepsy and minor operation and where there is greate muscular excitement. It is used in painless operations where we want our patient to sleep or rest.

8. What is aspidium. It is one of the Motor excitors.

9. Name a rubifacent. Mustard.

“ “ Vesicant. Spanish flies.

“ “ “ Blistering or cerate.

“ “ Escharotic carbolic acid.

10. Give treatment for acute gastric ulcer. Medicinal and Dietetic.

The treatment depends largely to the condition of patient and how long effected and the size of ulcer. Medicinal treatment is opium to relieve pain. Pepsin and Panpeptic elixir to aid digestion. Keepe bowels open by mild cathartics or laxatives. Watch temperature with antepieretics. The dietetic treament Give Such food as are easy digested and nutritive Milk beef tea, Soups ozsters, Broths, and fresh air Keep the patient quiet rest in bed.

11. Give Symptoms and treatment of poisoning by chloral. The symptoms are depression Stupor coma and deep profound sleepe with loss of sensation, and motions, and death, Treatment, Hot Baths, atropine Hypodermically, Digitalis Stimulants Electricity Keep them in constant action. Roll them about etc.

I have not received or aided any one.

Abstracts.

POSTERIOR DEVIATIONS OF THE UTERUS.—Dr. J. H. Carstens, Detroit, gives in the *Fort Wayne Medical Journal* for March 1897, the *rèsumé* of his views on retrodeviations of the uterus:

1. Retroversion and flexion occurring after labor can be perfectly cured if taken early enough, by a well-fitting pessary.

2. Many cases of retroversion and flexion of the uterus cause absolutely no trouble and need not be treated; still, many cases of nervous disturbances, and other kinds of functional disorders, are attributed to retrodisplacements of the

uterus *but have absolutely nothing whatever to do with it.* Hence, a most careful and perfect diagnosis must be made in all cases.

3. In rare cases retroversions without adhesions may be remedied by the shortening of the round ligament, or Mackenrodt's operation.

4. Cases of adhesions without disease of the appendages require an abdominal section, so as to enable the operator to loosen the adhesions and shorten the ligament by folding it upon itself by the Wylie, Dudley, or Mann method.

5. Cases of chronic inflammation of both tubes and ovaries, with or without pus, near the menopause, should be subjected to vaginal hysterectomy.

"TIC DOULOUREUX," FACIAL NEURALGIA AND MIGRAINE.—Giles de la Tourette (*Sem. Med.*) describes some typical cases. (1) Tic douloureux and neuralgia. From a therapeutic point of view it is most important to distinguish two classes of facial neuralgia: the first transitory and usually due to cold and peripheral irritation, the second refractory and perhaps incurable. First form: The pain during attacks is less intense, but is seldom entirely absent between them. The onset is sudden, then there is an acme and a decline. Second: Tic douloureux is completely paroxysmal, pain being entirely absent in intervals; its maximum intensity is reached quickly, and it ceases as suddenly as it came, the whole attack being of short duration. There may be ten to one hundred attacks in the day, which are often brought on by physiological acts, such as blowing the nose, laughing, mastication, etc., or come on spontaneously. The patients compress the painful spot, and the face is contorted. Secondary vasomotor symptoms are injection of the eye, œdema of eyelids, discharge from one nostril, etc. If the lingual nerve is affected the mouth fills with a copious secretion. Herpes along the nerve is common. Most often the neuralgia lasts some time (weeks or months), and then vanishes completely for a period. However, as age advances these intervals tend to become shorter and the painful periods longer until the disease is permanent. A hysterical form can be distinguished from the true by the irregular occurrence of the attacks, perhaps one a day and then no more for some time, by

the actual duration being longer, by the usual presence of an aura, and by terminating frequently with hysterical convulsions, which latter are never provoked by true tic, though hysteria and tic may coexist. Hysterical neuralgia is curable by suggestive treatment. Treatment: The first form of neuralgia is always benefited by analgesics (antipyrin, phenacetin, hydrobromate or valerianate of quinine); the second, or true tic, is quite uninfluenced by them. The only drug which can be relied on in the latter is opium in large doses. The author gives it in pills containing 2 centigrammes of the thebaic extract of the French pharmacopœia, made freshly and not too hard. Three a day are given at first, and the effect being carefully watched one pill is added every other day until the desired effect is produced. Trousseau gave in one case 14 and 15 g. a day. This dose is continued for a few days, and then diminished by one pill every other day. Prognosis: The attacks cured for a time almost always recur, and intolerance of opium is usually more marked during a second than in the first course. Still it is the best drug unless syphilis is present, when anti-syphilitic treatment is indicated. (2) Migraine differs radically from tringeminal neuralgia; the two may coexist in the same person and be quite distinguishable. The treatment of severe cases, accompanied by aphasia, etc., used by the author succeeds where antipyrin and even opium fail. Bromides are given as follows: Starting with 2 g. a day for a week, the daily dose is raised by 1 g. every week, and after a time reduced progressively by the same amount, when it is again increased. Up to 7 g. a day may be tolerated. By this means migraine of years' standing may be completely cured, but the treatment must be absolutely continuous, and may extend over more than a year. Thus it is not suitable for slight cases, owing to the inconveniences attendant upon a long course of bromides, and is useless during the attack. As an aid to treatment is the same as for epilepsy, and the author considers migraine to be a neurosis.—*Br. Med. Jour.*

DIRECT INSUFFLATION OF THE NEWBORN WITH THE STETHOSCOPE.—G. Fieuz (Rev. Obstét. Internat.) proposes the ordinary stethoscope as a means of resuscitating stillborn infants. In-

sufflating tubes, such as that of Ribemont-Dessaigues, are not always at hand, and, even when available, are not easy of introduction, but all medical men and midwives carry a stethoscope. Further, the stethoscope can be easily applied, and has been proved to give satisfactory results. The broad, bell-shaped end of the instrument is placed over the mouth and nose of the infant, fitting closely thereto like a mask. Through the other end, held in the left hand, the accoucheur blows air into the lungs, whilst he aids expiration by compressing the chest with the right hand after each insufflation. The head of the infant is kept in an extended position. It is difficult to understand wherein this method excels the ordinary methods of establishing respiration in cases of stillbirth, some of which—for example, Schultz's method—require no apparatus at all.—*Br. Med. Jour.*

ANTITOXIN IN DIPHTHERIA.—McCollom (*Pediatrics*) gives the results of the treatment of 1972 cases of diphtheria treated in the South Department of the Boston City Hospital during the thirteen months ending October 1896. These gave a mortality of 13.4 per cent.; there were 200 intubations with 107 deaths, a mortality of 53.5; 60 non-operative laryngeal cases with 2 deaths. All of 10 cases of tracheotomy died, 3 from extension of membrane, 4 from shock, and 3 from broncho-pneumonia. Of the 1972 cases, 34 per cent. had albuminuria; 12.3 per cent. had urticaria; and the percentage cases in which it was necessary to give two doses of antitoxin was 8.9. Post-diphtheritis paralysis occurred in 5.8 per cent. of the cases.

From the study of these 1972 cases of diphtheria treated at the South Department, the following conclusions are justifiable:

First: That antitoxin is a remedial agent of very great value in the treatment of diphtheria.

Second: That the healing serum does not cause albuminuria.

Third: That its use does not predispose to paralysis.

Fourth: That in the laryngeal cases of diphtheria, the benefit derived from its use is as great, if not greater, than in the non-laryngeal cases.

Fifth: That the statement that has been made that antitoxin

statistics, because based on mild attacks of the disease are unreliable, is incorrect.

POSTURAL METHOD OF DRAINING THE PERITONEAL CAVITY AFTER ABDOMINAL OPERATIONS.—Dr. J. G. Clark (*Bulletin Johns Hopkins Hospital*) from the bacteriological study of a large number of cases of abdominal section performed in the gynecological department of the Johns Hopkins Hospital, is forced to change his preconceived ideas in favor of drainage and coincide with those few writers who discard it altogether.

Escape of pus during an operation, oozing of blood or serum, extensive raw areas in the pelvis, are usually supposed to indicate the necessity of some form of drain; on the contrary, these are the cases which should be left to the care of the peritoneum, as demonstrated by a comparative study in our series of 1700 cases of abdominal section of a hundred cases each of similar pelvic inflammatory affections, drained and undrained. The undrained cases presented by far the best results.

The chief objections to drainage of dependent pockets in the pelvis or abdomen through an abdominal opening are, first, fluids are frequently not removed, but on the contrary are pent up by the gauze drain; and second, instead of removing infection, the gauze or tube may be the means of introducing it from the outside into the degenerated fluids.

To overcome the dangers of dependent pockets and dead spaces in the pelvis, I would suggest the elevation of the patient's body after operation to a sufficient height to start the flow of collecting fluids from the pelvis towards the diaphragm, and thus promote the rapid elimination by the normal channels of exit from the peritoneal cavity, of infectious matter and of vital fluids which may stagnate in these pockets and form a culture medium for pyogenic micro-organisms.

From an extended review of the studies by various authors of the functions of the peritoneum under normal and pathological conditions he makes the following summary:

1. Under normal conditions the peritoneum can dispose of large numbers of pyogenic organisms without producing peritonitis.

2. The less the absorption from the peritoneal cavity the greater the danger of infection

3. Solid sterile particles, such as fecal matter, potato, etc., are partly absorbed and the remainder are encapsulated without the production of peritonitis.

4. Death may be produced by general septicæmia, and not by peritonitis, where large quantities of organisms are taken up by the lymph streams.

5. Irritant chemical substances destroy the tissues of the peritoneum and prepare a place for the lodgment of organisms which becomes the starting-point for peritonitis.

6. Stagnation of fluids in dead spaces favors the production of peritonitis by furnishing a suitable culture medium for the growth of bacteria.

7. The association of infectious bacteria with blood clots in the peritoneal cavity is especially liable to produce peritonitis.

8. Traumatic injury or strangulation of large areas of tissue are strong etiological factors in the production of peritonitis when associated with infectious matter.

The accumulated evidence of all these investigators proves beyond question that the peritoneum, under normal conditions or even when greatly handicapped by disease or artificial conditions, is capable of overcoming the invasion of comparatively large quantities of pyogenic bacteria.

TREATMENT OF TYPHOID FEVER BY BATHS.—Dr. F. E. Hare gives the result of his experience with baths in the treatment of typhoid fever in Brislaue Hospital, N. Queensland, Australia, as follows: From 1882 to 1886 there were 1,828 cases, with 271 deaths, or a mortality of 14.8. From 1887 to 1896 there were 1,902 cases, treated by baths with 143 deaths, or a mortality of 7.5 per cent. He concludes from these results that Dr. Osler's estimate of the value of baths is correct, that they save from 8 to 10 in each 100 cases.

COCAINE AND ICHTHYOL IN THE TREATMENT OF FISSURE OF THE ANUS.—M. Jules Cheron (*Gazette de Gynecologie*) has always obtained good results by means of the following treatment; The anus being partly opened and the fissure discovered, a small tam-

pon of absorbent cotton saturated with a 1-per-cent. solution of cocaine hydrochlorate is applied. At the end of five minutes local anæsthesia is obtained and the fissure can then be touched with pure ichthyol. This procedure is renewed on the following days. After the fourth or fifth application the tampon of cocaine is introduced as far as the sphincter, and at the end of five minutes it is possible to make a slight dilatation of the anus with Nélaton's dilator. In this way the fissure is distinctly exposed to view and can be thoroughly touched with ichthyol. The dilatation is more easily affected as cicatrization advances and it may gradually be increased until the disappearance of stricture of the sphincter, which so frequently complicates fissures of long standing, is an accomplished fact. Recent fissures may be cured by ten applications of this treatment, but old fissures the borders of which are more or less callous, require a longer time for recovery; it is rarely necessary, however, to make more than twenty applications.—*Universal Med. Jour.*

DIAGNOSIS OF DISEASE OF THE HIP JOINT.—Irving S. Haynes, (*New York State Medical Reporter*). In hip joint disease there is usually a tubercular history in the family, and a pretubercular stage present. The disease begins insidiously, develops slowly, and presents the symptoms of a low grade of inflammation, subject to exacerbations resulting from increased irritation from undue use of the joint, or changes in the weather. Pain is almost never felt in the joint itself, but on the inner side of the knee, leg, or ankle. A limp, not marked, not constant, but coming and going at first, but later becoming established, is significant of tubercular disease. Atrophy appears early and may be the only positive sign at the first examination. Err on the safe side and watch such a case. Muscular spasm is also an early symptom. It may not be marked, may limit the motions in only one or two directions, but when present is a sure indication of hip joint disease.—*Archives of Pediatrics.*

TO PRESERVE STEEL INSTRUMENTS FROM RUSTING.—Dr. Maréchal (*Gaz. Med. de Liège*, April 1,) in 1893 placed several perfectly new steel instruments, including bistouries, Pravaz'

needles, a nickel watch (open), etc., in the following solutions: 1, an aqueous 2 per cent. solution of sodium bicarbonate; 2, ditto sodium carbonate; 3, ditto sodium borate; 4 ditto benzoate; 5, alcoholic 2 per cent. solution of sodium benzoate; 6, alcohol, 95 per cent., 5 grams to 1 gram sodium borate; 7, alcohol, 95 per cent.; 8, water. In 1895, two years later, the instruments in the first six solutions were found absolutely intact, without a trace of rust, even when tested with potassium sulfo-cyanid. But those in the 7th and 8th were completely covered with rust. He therefore recommends keeping steel instruments in one of the first six solutions to preserve them from tarnish and rust.—*Jour. Am. Med. Asso.*

Therapeutic Hints.

RHUS TOXICODENDRON IN MUSCULAR RHEUMATISM.—A. L. Benedict (*American Therapist*) has used this drug quite extensively in the treatment of muscular rheumatism; several cases having come under his observation, in rapid succession, that were relieved by its administration. He employs the following formula:

R̄—Potassium bromide	1 drachm.
Fluid extract rhus toxicodendron	5 fluidrachms.
Syrup sars. comp.	12 fluidrachms.
Water.	4 fluidounces.

Sig.: A teaspoonful after each meal.

TREATMENT OF ECZEMA.—At the twenty-third congress of the German Surgical Society Dr. Rotter recommended the following as an efficient application for the treatment of eczema:

Formalin, 1 part.
Zinc Oxide, 100 parts.
Powdered Talc, 100 parts.
Vaselin, 200 parts.—*The Practitioner.*

TO ABORT CORYZA.—Ten grains each of Dover's powder and phenacetin are put into four capsules; two of these are given at once, and the patient remains for about ten minutes in a hot bath. He then takes a hot lemonade or rum punch and gets between several thicknesses of heated blankets. In half an hour the second two capsules are given, unless perspiration is already abundant. Such perspiration should continue for an hour, after which the skin is slowly dried, and the patient retires for the night to a comfortable bed.—H. B. Whitney.—*Med. Record.*

TO PLUG THE POSTERIOR NARES.—Twist up from three to six loops of stout thread twelve inches or more in length, leaving one thread hanging, the rest being waxed so as to form a rigid mass, which can be inserted into the nasal cavity as far as the posterior wall of the pharynx. The extremity is seized by means of a forceps through the mouth, and brought outside of the lips. The thread is then separated and a cotton tampon attached to fill the posterior nasal orifice. This is placed in position by drawing upon the threads which project from the nostril with the aid of a finger in the mouth. Leave hanging in the pharynx an end of the thread with which to extract the tampon.—Stephen.—*Med. Record.*

VARICOCELE.—Never operate for varicocele on both sides at one sitting. The accident of atrophy of both testes has been known to follow.

GRANULATING WOUNDS.—An ointment composed of ten per cent. balsam of Peru in vaseline, to which enough cocaine hydrochlorate to make four per cent. has been added, makes an excellent and most soothing dressing for painful granulating wounds.

FISTULA IN ANO.—A simple fistula in ano with a straight course, and no branching or tributary tracts, may be quickly cured by completely excising the diseased tissue and obliterating the entire wound cavity by means of catgut sutures. No

sutures, however, should pierce the mucous membrane. The same operation may be performed in the more complicated fistulæ, but the chances of primary union are correspondingly less.

WOUND INFECTION.—The occurrence of infection in a wound where primary union was looked for, is almost invariably indicated by elevation of temperature; there may be chill and there is usually pain. Where the infection is of a mild type, however, a slight constant elevation may be for many days the only sign, and must always be regarded with suspicion, no matter how dry and clean the wound union may seem. Remember that the normal human temperature taken by rectum in the morning is *below* ninety-nine degrees Fahrenheit.—*Inter. Jour. of Surgery.*

THE PUBLIC SERVICE,

ARMY.

Medical Department. From April 29, 1897, to May 12, 1897.

First Lieut. Paul F. Straub, assistant surgeon, is assigned to duty with Troop C., 4th Cavalry, during the season at Sequoia National Park and General Grant National Park, California.

Capt. Merritte W. Ireland, assistant surgeon, is assigned to duty with Troop K, 4th Cavalry, during the season at Yosemite National Park, California.

First Lieut. Guy C. M. Godfrey, assistant Surgeon, now on temporary duty at St. Paul, Minn., will proceed on the 15th instant to Fort Yellowstone, Wyoming, and report to the commanding officer for temporary duty with troops in the National Park, during the season.

The following named officers are detailed to represent the Medical Department of the Army at the seventh annual meeting of the Association of Military Surgeons of the United States, to meet at Columbus, O., May 25 to 27, 1897, Lieut. Col. William E. Waters, Deputy Surgeon General, Maj. Henry Lippincott, surgeon, Capt. Robert J. Gibson, assistant surgeon.

First Lieut. George A. Skinner, assistant surgeon will proceed to Fort Spokane, Washington, and report for temporary duty during the absence of Captain Edward R. Morris, assistant surgeon, on leave for six months to take effect on or about May 18, 1897.

By direction of the President, the retirement from active service this date, May 3, 1897, by operation of law, of Colonel Charles T. Alexander, assistant surgeon general U. S. A., is announced.

NAVY.

For the week ending May 8th, 1897:

May 3.—Medical Inspector J. C. Wise, detached from marine headquarters, Washington, May 15, and ordered to Columbus, Ohio, as delegate Association of Military Surgeons.

Medical Inspector J. C. Wise, after duty at Columbus, ordered to the "Philadelphia" as fleet surgeon.

Medical Inspector J. A. Hawke, detached from the "Philadelphia" on relief, and granted three months' leave.

Passed Assistant Surgeon C. H. T. Lowndes, ordered to duty at marine headquarters.

Surgeon C. U. Gravatt, ordered to U. S. S. "San Francisco" (fleet) per steamer May 22.

Medical Inspector H. J. Babin, detached from the "San Francisco," on relief, ordered home and granted three months' leave.

May 5.—Passed Assistant Surgeon G. T. Smith, ordered to the Naval Hospital, New York, temporarily, May 15.

Assistant Surgeon M. S. Elliott, detached from the "Columbia" and ordered to the "Indiana."

May 6.—Medical Inspector J. M. Flint, ordered to examination for promotion, Washington, May 12.

Miscellaneous Items.

The profession of Denver are going to bid high for the next meeting of the A. M. A.

Among the graduates of the Virginia Medical College we note the names of the following North Carolinians: Dr. H.

M. Banner, Aurora; Dr. Charles W. Keel, Brantsboro; Dr. W. J. Knight, Wiggins Cross Roads; Dr. J. B. Pearson, Jr., Fremont; Dr. Marvin P. Skeen, Farmers; Dr. C. R. Wharton, Ruffin. The Alumin Prize for the highest average mark on examinations in all branches was awarded to Dr. C. W. Keel, who was also appointed as Resident Physician in the Old Dominion Hospital.

Dr. Emma Wakefield, a colored woman, has received a license to practise medicine from the Louisiana State board of medical examiners. She is the first woman of her race to receive a medical license in the South.—*Med. Fortnightly*.

[Not a matter of much importance, but North Carolina cannot be outdone even in this respect. A colored woman received her license to practise medicine in North Carolina from the Board of Examiners in 1894.]

PROFESSORS TO BE ELECTED.—Vacancies in the Faculty of Virginia, occasioned by the resignation of Dr. J. W. Long, as Professor of Diseases of Women and Children, and by the death of Dr. Charles M. Shields, late Professor of Diseases of the Eye, Ear and Throat, will be filled by the Board of Visitors at a meeting to be held at 8 p. m. May 26th. Advantage will be taken of this opportunity to make changes in some of the present chairs with reference to an increase from the three to the four years graded course which has been determined on.—*Virginia Med. Semi-Monthly*.

The action of the Board of Trustees of Jefferson Medical College, which body, after careful consideration, has resolved to adopt a special Spring Course in the new laboratories of the College Hospital and to make elaborate preparations for summer laboratory courses and post-graduate tuition, will be hailed with satisfaction by past, present and future students, to whom it will mean the same rare opportunities for summer study which have been enjoyed during the past winter. Jefferson College thus becomes an institution of perennial value to the country in an educational way; and the new departure is espe-

cially gratifying as a fresh proof of the vigorous and progressive spirit which rules in the management.—*Phil. Record.*

A MACHINE TO MAGNIFY ODORS.—A machine which will magnify odors, just as the microphone does sound, is said to have been invented by a Binghamton, N. Y., genius. The story is rather Munchausenish; but if it be true, the inventor has evidently made a mistake. What the general public wants is a machine that will seize an able-bodied smell, like that of Limberger cheese or Brooklyn water, and instantly reduce it to zero. Perhaps the Binghamton man's device will do this already if it be run backward. Why not try the experiment.—*The Sanitarian.*

A bill providing for the payment of debts through which the doctor will benefit is before the New York Legislature. Its provisions are as follows: Executors and administrators must proceed to pay debts in the following order: 1. Debts entitled to a preference under the laws of the United States. 2. Taxes assessed on the property of the deceased previous to his death. 3. Debts of the deceased because of services rendered and materials furnished by physicians, pharmacists, nurses and undertakers. 4. Judgments docketed, and decrees entered against the deceased according to the priority thereof respectively. 5. All recognizances, bonds, sealed instruments, notes, bills and unliquidated demands and accounts. Preference shall not be given in the payment of a debt over the other debts of the same class except those specified in the fourth class. All debts specified in the third class shall become due upon the death of the deceased, and shall be paid within ninety days thereafter.—*Med. and Surg. Reporter.*

DAMAGES WANTED FOR "SPOILED BEAUTY."—Mrs. Barbara George is the plaintiff in a novel suit brought in the Supreme Court, Brooklyn, against the Cypress Hills Cemetery company. She asks \$10,000 damages for "the spoiling of her beauty." In June, 1895, she states that she visited her husband's grave at Cypress Hills, and found weeds growing thereon. She pulled them out, and afterwards discovered, to her cost, that they were

poison ivy. In consequence of the effects of the poisoning she was confined to the house for eighteen months, and when she was finally able to go out her beautiful complexion was ruined. As she had paid a certain sum each month to the managers of the cemetery for the care of her husband's grave, she claims that the company is responsible for her condition, and so prays the court to award her the sum mentioned for her suffering and loss.—*Boston Med. Surg. Jour.*

Not very long since we were sitting in a "cable car," behind an evening paper, when a prominent surgeon of this city entered in company with a prominent merchant. We paid no particular attention to them, continuing our reading, until the P. S. said: "Yes, I have operated on over twenty cases this month and all recovered." P. M.: "Very dangerous operation is it not, doctor?" P. S.: "O, yes, there are very few surgeons who should be allowed to undertake it. There are three or four others here who do this operation, but from some cause or other they have very poor success, and they are good surgeons, too." At this point the prominent P. S. opened his "grip" and took out a lot of pathological specimens which he exhibited to the P. M. (others in the car were not barred from looking and listening), explaining all the bloody details of the operations. This P. S. is strongly opposed to advertising and believes in the code from "kiver to kiver."—*Langsdale's Lancet.*

The Doctors of Richmond, Virginia, are crying out, and justly, too, against the heavy license tax that is imposed upon them by State and City governments. The average physician has to pay an annual tax of from \$40 to \$60.

The latest journals to come to our desk are the *Medical Register*, the organ of the Medical College of Virginia and "*The American X-Ray Journal*, a monthly, devoted to the practical application of the new science and to the physical improvement of man." The latter, in its salutatory, says "no apology is considered necessary for undertaking the publication." The former is the result of a conference between the Faculty of the College and the Society of Alumni.

NECROLOGY.

Dr. J. Mack Hays died at Greensboro, N. C., May 15, 1897.

It is with much pain we make the above announcement. Dr. Hays was found dead in his bed, on the morning of the 15th, his death being attributed to an overdose of morphine. For a year or two he had been addicted to the use of morphine and spent some time during the past winter in the Western North Carolina Hospital under treatment for this trouble. He had recently returned to Greensboro and resumed his practice.

Dr. Hays was a native of Greenville county, this State, and was about 40 years of age. He was a man of much brightness of intellect, and but for this unfortunate habit that gained the mastery over him would have doubtless risen to great eminence in his profession. He graduated from the Medical College of South Carolina, at Charleston, and became a member of the State Medical Society in 1885. He was for three years Secretary of the Society, and in 1894 was elected a member of the State Board of Medical Examiners, which office he filled until his death. He was an active member of the Society, being but seldom absent from a meeting and presented to the Society several papers of merit, to one of which "The Use of the Microscope in the Practise of Medicine," was awarded the Pittman Prize. Early in his professional career he reported a case of Cæsarean section performed after the death of the mother, a living child being removed.

For some years Dr. Hays practised in Oxford, his native town. He afterwards practised a short while in Washington City where he was also in control of Dr. Hammond's sanitarium. Later he took a special course in diseases of the eye, and after removing to Greensboro, devoted much of his time to this branch of medicine.

Reading Notices.

SANMETTO IN BRIGHT'S DISEASE.—Charles F. Reiff, M.D., of Fremont, Ohio, writing, says: "I prescribed Sanmetto in a case of advanced Bright's Disease. The patient became more comfortable, and since then has used several bottles of Sanmetto. In my opinion Sanmetto is the most efficient remedy for diseases of the genito-urinary organs, and shall continue to prescribe the remedy."

In answer to the question: "What will Ergotole do?" I have made a series of open researches in determination of this point, and have arrived at the following deductions:

1. It does not produce, influence or dispose to any symptoms which are referable to the gastro-intestinal canal or the cerebro-spinal axis. These symptoms include gastric pain, nausea, vomiting, and, in some subjects, purging. These symptoms are due to a local irritant action. Therefore,

2. *It is not an irritant.* A puppy, treated, for four days with hypodermics of Ergotole, showed no evidence of inflammation of stomach or intestines; while another puppy, similarly treated with fluid extract of Ergot, showed both gastric and intestinal patches of inflammatory redness.

3. Its action on the vaso-motor nervous system is intense.

4. It diminishes blood supply more readily than any other excito-motor.

5. Its action on the unstriped muscular fibre is without fault.

6. Employed hypodermatically, it does not cause structural alterations of the tissues.

For these reasons it is welcomed as an important addition to the new materia medica—a pure Ergot.

W. H. Morse, M.D., F.B.S.Sc.,
Author of "New Therapeutical Agents."

March 9, 1897.

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Kidneys or Bladder, Both Uric Acid and Phosphatic For-
mations. Its Value in Bright's Disease, Gout, Etc.

ANALYSIS AND REPORT OF DR. A. GABRIEL POUCHET

Professor of Pharmacology and Materia Medica of the Faculty of Medicine of Paris. Director of the Laboratory of the Consulting Committee of Public Hygiene of France.

PARIS, February 12, 1897.

"The collections of disintegrated or broken down vesical or renal calculi which forms the subject of the following analysis and researches, were sent me by Doctor Edward Chambers Laird, resident physician Buffalo Lithia Springs, Virginia, U. S. A. They were discharged by different patients after the use of the mineral water of Buffalo Lithia Spring No. 2 for a variable time.

"I advise here from the experience of Doctor Laird the use of this mineral water, which has had with him a happy influence on the disintegration of the calculi and their elimination. It is to demonstrate this that he has requested me to make this analysis.

"The collections of the disintegrated calculi submitted to my examination were eight in number.

SPECIMEN OF CALCULI "A."—These disintegrated renal calculi are very numerous, and present themselves in the forms of grains of various sizes (from that of the size of a pin to that of a pea) of reddish yellow color, very hard and nucleus in the center. They are thus composed: Urate of ammonia—for the greater part; free uric acid—small quantity; carbonate of ammonia and magnesia—small quantity.

CALCULUS "B."—This disintegrated vesical calculus presents itself in the form of many fragments of a granular aspect of a greyish white color. They are easily broken, and the texture of the fragments show that they are porous throughout. Chemical composition: Urate of ammonia—for the greater part; carbonate of ammonia and magnesia—in small quantity.

CALCULUS "C."—Vesical calculus reduced to crystalline powder, granular, of a greyish white color, rather friable. Chemical composition: Phosphate of ammonia and magnesia—for the greater part. Carbonate of lime—small quantity. Oxalate of lime—very small quantity.

CALCULUS "D."—Vesical calculus thoroughly disintegrated, fragments many and angular, granular aspect, of a rather fragile consistence of a greyish white color. Chemical composition: Bicalcic phosphate—for the greater part (fusible directly to the blow pipe). Oxalate of lime—small quantity. Carbonate of ammonia and magnesia—small quantity. Xanthine—very small quantity.

CALCULUS "E."—Disintegrated renal calculi, many polyhedral fragments, rounded at the angles, consistence hard, color yellowish red. These calculi are hard and appear formed of concentric layers. Chemical composition: Uric acid—nearly the whole part. Uric pigment—(acide rosacique.)

(SIGNED) A. GABRIEL POUCHET.

A portion of report omitted for lack of space.

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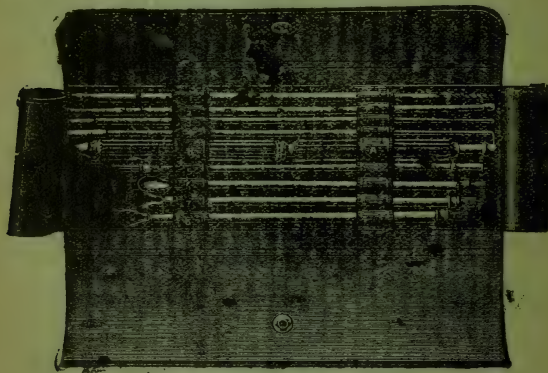
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dily send samples. See their Ad' in this Journal.

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JUNE 5, 1897.

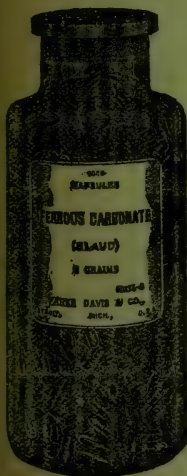
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NORTH CAROLINA MEDICAL JOURNAL.

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NO. 11

Original Communications.

REPORT ON OPHTHALMOLOGY AND OTOTOLOGY.*

BY EDWARD F. PARKER, M.D., of Charleston, S. C., Professor
of Physiology and Assistant in Diseases of Eye, Ear,
Nose and Throat, Medical College of the State
South Carolina, Charleston, S. C.

I HAVE endeavored in this report, Mr. President and Gentlemen of the Association, to present only a brief resumé of the most practical and interesting contributions to the literature of Ophthalmology and Otology and to our knowledge of these specialties for the year ending April 1897. Perhaps in point of importance the operation of extraction or discission of the chrystalline lens for the improvement in vision and the alleviation of the condition in high degrees of myopia deserves mention first. This operation by no means new, for it was only revived by Fukala in 1887, has steadily grown in favor and is now beyond doubt firmly established as a justifiable and advisable procedure. It practically converts a highly myopic eye into an almost normal one as far as the refraction is concerned. Its dangers are many and often disastrous it is true, but in the thousand cases so far reported the results are generally gratifying and even marvellous. I have now under my care, however, a case which was operated on last summer by

*Read before the South Carolina Medical Association, April 26, 1897.

Von Hippel, of Halle, one of the most enthusiastic and experienced operators, in which an apparently brilliant result has become a most dismal failure owing to recurrent attacks of a most intense cyclo-irido-choroiditis, which may totally destroy vision and perhaps the eye itself. High degrees of myopia are not so common in this country as in others and for this reason few operations have so far been performed here.

Fuchs, of Vienna, (*Wiener Klin. Wochensch.*, ix Jahr, No. 7.) describes as a new disease a peculiar relaxation of the skin of the upper lids in young and middle aged persons resembling that of senile relaxation and atrophy for which he advises excision of a portion of the region affected.

Burnett, of Washington, (*Ophth. Record*, March, 1896) calls attention to the value of Formalin, 1 to 2000, as a germicide of great power, possessing little if any toxic property and having the power of rapidly diffusing itself through the tissue.

Randolph of Baltimore (*Johns Hopkins Hospital Report*, 56 and 57) reports and describes a so called oyster shuckers keratitis due to injury of the cornea by small pieces of shell, the peculiar course of inflammation being due most probably to the presence of carbonate of lime.

Coe, of Washington, (*Annals of Ophthal.*, vol. v., No. 2.) suggests as the ideal operation for pterigium the cauterization of the apex only with a red hot platinum probe and claims that the rest of the growth undergoes rapid atrophy.

Maxwell, of Dublin, (*British Med. Jour.* Nov. 1865) calls attention to nasal obstruction as a cause of asthenopia. Many cases he says will not be relieved with or without glasses until the diseased condition, adenoids and enlarged turbinates being most common, in the nose is relieved.

Lawford, of London, (*Ophth. Rev.*, vol. xv, No. 178) recommends in cases of central opacity of the cornea with some clear periphery, anterior polar cataract, or obstructed pupil from deposits on the anterior lens capsule what he calls an extra ocular iridotomy for the formation of an artificial pupil. The iris is withdrawn as usual but instead of being excised is only incised and returned, with the instillation of physostigmine.

Snell (*Ophth. Rev.*, vol. xv., No. 180) uses small cotton tam-

pons soaked in very hot water and pressed into the socket for the arrest of hemorrhage after enucleation of the eyeball.

C. S. Bull (Trans. Amer. Oph. Soc. 1896) reports as a result of his experience that the prognosis in the removal of all forms of malignant orbital tumors is unfavorable. The operation is almost invariably followed by a return of the growth, this secondary growth being more rapid and the period of quiescence after each operation being shorter. Removal of all diseased tissue is a hopeless task and the patient must decide the question. He concludes that repeated operations shorten life and that we must never operate merely for the relief of temporary physical disfigurement but only for the relief of intolerable pain.

Wood, of Chicago, agrees with Bull that there is no better treatment for detachment of the retina yet discovered than the old one, viz., rest in bed on the back, atropine, bandages and the use of some internal absorbent.

Marlow urges against the use of a bandage in cases of heterophoria and squint after tenotomies for these two conditions. The onset of strabismus is not uncommonly observed in children wearing bandages for other diseases of the eye and is due to the temporary abolition of binocular vision. Similarly after tenotomies for heterophoria with full correction of the error after the removal of the bandage we find an increase in the error.

Great importance is attached to the immediate influence of the binocular function in establishing a perfect equilibrium after tenotomy while the tendon is more or less completely detached from the eyeball. The immediate exercise of the binocular function helps to determine the point for re-attachment of the tendon.

Rogers (Oph. Record, May, 1896) reports acute glaucoma in both eyes following the instillation of homatropine. This should only make us more cautious in the use of atropine solutions in persons of middle age and older naturally predisposed to this dangerous disease.

Basevi (Am. di Ottalm., xxv., 2-3) reports the growth of the *leptothrix buccalis* in the lachrymal canal, the history revealing

the fact that the patient had been in the habit of moistening the lids with the saliva.

Hoor (*Wiener Med. Wochenschr.*, No. 35) prevents successfully the re-attachment of the surfaces of the wound after symblepharon operations by the use of a piece of the membrane lining the shell of a hen's egg which was replaced by a fresh piece each day.

Basseres reports (*Arch. d Ophthal.*, xvi, 6, p. 352) twelve cases of retinal hemorrhage occurring as a direct result of malaria. Other disturbances of vision were numerous, too, in Madagascar as a consequence of this disease, all recovering promptly when the malaria was cured.

Tornatola says that (*Arch. di Ottalm.*, iii., 11-72, p. 350) in twenty cases of perforating shot wounds of the eye he has only seen sympathetic ophthalmia once. This he thinks due to the antiseptic treatment of the wound and to the fact that shot fired from a gun are aseptic.

Ranny (*N. Y. Med. Jour.*, Jan. 2 and 9, '97) reiterates his position as to the frequent relation between eye strain and epilepsy and reports many permanent cures by the correction of errors of refraction alone and tenotomies for muscular insufficiencies.

Ernest Clark, of London, (*Medical Press and Circular*, 1896, No. 22) discussing the various manifestations of eye strain upon the eye itself and their bearing upon treatment says that blepharitis, phlyctenular conjunctivitis and keratitis are almost invariably associated with errors of refraction. Scleritis and recurrent iritis are caused in a smaller proportion of cases by eye strain and he believes that there is a distinct association between cataract and astigmatism.

Eucaïne the new anesthetic has not found much favor on account of the pain it causes and because, while it does not dilate the pupil or affect the accommodation quite as much as cocaine, it presents no other advantages over the latter.

The importance of the Röntgen rays as a means of diagnosis is undoubted but as yet they are mainly useful in diagnosing fractures and diseases or malposition of bones and the presence or foreign bodies. Improvements and modifications specially adapted to the determination of the situation of foreign bodies

in the eye by means of the rays have been attempted with considerable success and doubtless they will finally be of great service in ophthalmology.

OTOLOGY.

Boke (*Arch. f. Ohrenh.*, Bd. 4, p. 57) records a fatal case of meningitis set up by unskilful efforts at removal of a foreign body from the ear of a child 3 years old. Other cases of a similar nature are reported elsewhere. It seems to take the profession a long time to learn that what has been put into the ear can usually be syringed out with hot water.

Trifiletti (*Ann. des Mal. de l'Oreille*, July, '96) records a case of facial paralysis following inflammation of the ear, which seems to confirm the views of Lannois and Gellé that in almost every case of so-called facial paralysis from cold the middle ear will be inflamed and that this is the real cause of the facial palsy.

Cartaz (*Arch. internat. de Caryng. et d' otologie*, 4, 1896) thinks that facial paralysis of otitic origin is very common. Cold and rheumatism are not as frequent causes. The paralysis is caused either by the pressure of the exudation or is directly propagated to the nerve. He treats it as he would acute otitis media.

McNaughton Jones (*Internat. Otol. Congress; Ann. des Mal. de l'Oreille*, vol. xxii) discusses the relation between nasal hypertrophy and ear disease. In three hundred cases of aural disease he found sixty-nine cases of hypertrophy of the turbinates and eighteen deviations of the septum. He concludes, therefore, that in about one quarter of any given number of cases nasal obstruction may be regarded as causative of deafness.

Dench and Adams (*Trans. Amer. Otol. Soc.* vi, pt. 3.) record successful operations for the relief of otitic thrombosis of the lateral sinus. In both cases the sinus was opened after being exposed and large clots removed which were caused by the imperfect drainage from the middle ear and produced symptoms of extreme septic infection. Cases of otitic sinus phlebitis and thrombi of the lateral and sigmoid sinuses and internal jugular vein are not rarely reported now as following acute suppurations of the middle ear. The sinus is opened, cleaned out,

septic clots removed and the wound in the vein treated by plugging with iodoform gauze. Recovery has been the rule.

In the treatment of earache from acute otitis media it is recommended, when leeches and dry heat fail, to perform paracentesis of the drumhead early. We should refrain from douching or inflating the ear as methods of secondary infection. The immediate discharge is beneficial and should be drained from the canal with antiseptic gauze. The persistence of the discharge will call for other treatment.

Villa (*Arch. ital. di Otol., etc., iv, 1896*) uses freshly prepared hydrogen dioxide in combination with a solution of iodide of potash for the treatment of chronic purulent otitis which after instillation into the meatus develops iodine.

The importance of adenoid growths as factors in the causation of more or less permanent deafness is being daily more and more emphasised and it is stated that many deaf mutes owe their condition to the effect of these growths in the nasopharynx. Hence the necessity of early removal.

Barr reports a case of acute otitis media with mastoiditis following the surgical removal of these growths from the nasopharynx. This sequel he thinks was largely due to the irrigations of the nasopharynx used both before and after the operation on the growths. Hence he considers such irrigation inadvisable as well as dangerous.

MYELITIS AND PARALYSIS.

By EUGENE GRISSOM, M.D., LL.D., of Pueblo, Colorado.

THE general practitioner is apt to avoid the consideration of nervous diseases as belonging exclusively to the specialist and to regard the nervous system as simply an appendage to the rest of the body, when it really is an integral portion of every part of it. No organ of the body is exempt

from nervous influences. and no pathological change can take place without a corresponding neurotic lesion. In no other department of medicine are the results of progress more striking than those belonging to the Science of Neurology; and hence, no branch is more helpful and necessary to the general practitioner than this, because there is no department of medicine that consists more largely of applied anatomy and physiology than neurology. Consequently it is of the greatest aid to the general practitioner in his daily avocation.

Myelitis is an inflammation, acute, subacute, or chronic, of the spinal cord. The anatomical lesions which characterize inflammation of the cord are remarkable for their tendency to symptomatize, that is, to localize in one or more of the columns of white or gray matter. Thus in the acute state the inflammation localizes itself in the cells of the anterior horns, causing atrophy.

The Paralysis of Infancy.—In the sub-acute form it confines itself to the same locality, and differs from the acute chiefly by its progress.

The Spinal Paralysis of Adults, in the chronic form, may localize itself in the posterior columns (progressive locomotor ataxia) or in the lateral columns (lateral amyotrophia sclerosis) or in the anterior horns (progressive muscular atrophy) or in the muscles of the origin of the nerves of the bulb (bulbar paralysis).

Now the localization of inflammatory lesions is not constant. There exists diffuse myelitis non-systematized, acute or chronic. The latter are nearly always interstitial, and form the variety of sclerosis called sclerosis in plaques—the acute diffuse myelitis in which the lesion may be generalized, or sometimes localized in the white or gray matter.

When the whole thickness of the cord is affected in a small vertical extent, myelitis is said to be *transverse*. When one small area is affected the inflammation is called *focal*. When there are many foci contiguous or distant the myelitis is said to be *disseminated*. Inflammation of the gray matter, around the central canal extending into the intermediate gray matter, is termed *central myelitis*. A further distinction is that between parenchymatous myelitis, an acute affection commencing in the

nerve elements, and the interstitial form which commences either in all the elements or in the connective tissues and in which vascular disturbance plays a prominent part; the latter is a common form of myelitis, whether transverse or disseminated.

Myelitis is said to occur most frequently in the dorso-lumbar region; acute inflammation occupying the cervico-dorsal portion of the marrow is a dangerous affection; the risk is great whenever the cervical region is attacked, so that the intercostal muscles are paralyzed, and in proportion to the nearness of the lesion to the origin of the phrenic nerve. A careful examination of respiratory movement should be the first concern. Any indications that foci of inflammation have developed in the medulla oblongata are of great significance.

The immediate causes of myelitis may be briefly stated: Injuries of all kinds, bruises and punctured wounds; hemorrhage into the cord is followed by extensive myelitis; concussion is said to set up a sub-acute form of myelitis; violent action of the muscles attached to the spinal column, such as attempts to lift heavy weights, exposure to cold when the body is heated, lying on damp grass, bathing in cold water, exposure of the back to cold sometimes seems especially effective. Toxic *blood-states* form a well-marked class of causes, inflammation coming in the course of, or after, typhus, typhoid, variola, measles, acute rheumatism. Acute attacks are not uncommon in syphilitic subjects. Alcoholism is an occasional cause of sub-acute inflammation of the cord—also gout, irritation and inflammation of the bladder, uterus, kidneys and intestines.

The causes of chronic myelitis are various and can only be briefly touched upon in a paper like this.

An inherited tendency can sometimes be traced. Injury is a frequent cause; chronic inflammation may develop in the vicinity of a damaged spot. Chronic inflammation may be secondary to other local processes. Inflammation resulting from pressure may be either acute or chronic. Chronic alcoholism is an important factor in cases of chronic meningitis when the inflammation extends to the substance of the cord. Gouty diathesis is a cause of chronic myelitis. Another cause is

constitutional syphilis, which may cause a diffuse inflammation or a focal chronic indurating myelitis.

TREATMENT.

As medullary diseases are frequent and the most of them have a long and progressive course, requiring long and frequent attention, it will be well to give some hints on the medication most in use.

At the same time we have to acknowledge its frequent inefficiency, not surprising, however, when we consider the position of the cord, surrounded by its bony envelope, and the difficulty of reaching it by direct medication; and also the structure which within its small volume contains both nerve centers and conductors, which establish a direct communication between the brain and nerves.

If the case comes under observation early, when slight sensory disturbance and slight weakness of limbs indicate the commencing process, treatment may avert further development of the inflammation.

If the symptoms follow exposure to cold, a hot bath followed by free diaphoresis should be employed, followed by counter-irritation and other measures now in use. If there is considerable paralysis, showing that the inflammatory process is fully developed, little can be accomplished by these measures, and it is better not to subject the patient to a treatment incompatible with perfect rest, which is of paramount importance in all cases. Both functional excitation of the cord and movement of the spinal column should be avoided.

In the treatment of congestion we must recollect that the circulation in the marrow is very active. Numerous veins and arteries form around its osseous canal, and its integuments cover a rich net-work of circulation which it is difficult to reach; but as the medullary vessels and the vaso-motors, which supply them with nerves, are accessible to reflex action, it is clear that by an action applied upon points more or less distant, we may modify the marrow circulation. Upon this action is based the *revulsive* medication which takes first place in the treatment of medullary affections.

Of the methods employed everything has been made use of from friction with irritating pomades to deep destruction of tissues by cauteries and moxas. These have been replaced by electric cauteries, which present all the advantages of the former without the inconveniences. They cause no sores or wounds and may be renewed quite often. They are preferable to vesication, which, besides the excitation of the derma, occasions troubles in micturition, which is already profoundly modified by the disorders of the marrow.

Electricity, applied externally to the bony canal of the marrow, modifies the medullary circulation.

In applying electricity in the treatment of myelitis two methods can be followed: In the one, with foradic currents, a most energetic revulsion is produced along the spinal column by means of the brush electrodes; this method has been followed by happy results with tabetics. In the other method continuous currents may be employed along the marrow. Whether ascending or descending, the currents seem to produce the same effect. In connection with cauterizations or applications of cold or hydrotherapy, or electricity, certain internal treatment should be given in order to diminish the congestion or the sclerosis.

The strange property contained in spurred rye to affect contractility of the capillary net-work, has been utilized in affections of the marrow.

Brown-Sequard was one of the most ardent supporters of this agent. Iodide of potassium is advised in cases of tabes. The good results obtained from it should not be credited to its action upon the capillaries of the marrow, but really to its specific action upon products of a syphilitic nature. Most all tabetics are syphilitic—hence the good results from the iodide of potassium. Bromide of potassium has a great and important action in the treatment of diseases of the marrow, because it tends to diminish visibly the excitomotor power of the cerebro-spinal axis. It should be administered every time that signs of irritation or medullary excitation make their appearance. Two agents have been especially recommended in the treatment of sclerosis, viz: nitrate of silver and phosphorus.

Wunderling called attention to the use of nitrate of silver

in 1861, given in doses of one centigramme in pill form, commencing with one and going on to four pills in twenty-four hours—never going beyond four, and only to be used when all symptoms of congestion have disappeared. This remedy has been greatly overrated. After prolonged use in many cases the results were insignificant or nothing at all. How this medium acts is a question which science has not yet solved. The use of phosphorus in the treatment of locomotor ataxy is of later date. In many cases a real amelioration has been experienced, characterized by a sensation of strength and by a diminishing of incoördination. From what I have been able to learn this is all the benefit that has been derived from the use of phosphorus in these cases.

Strychnine has been used, but having no influence on the morbid processes and being powerless to cure the disorders resulting from the inflammation, it cannot have any good effect in acute or chronic myelitis. Sometimes its action might be harmful on account of the irritating influence it exerts upon the medullary axis.

Meningo-myelitis, whatever the cause may be, is one of the most frequent affections of the cord. It is characterized by two phenomena. First, there are paroxysms of pain more or less intense, similar to fulgurating pains or sciatic pains. Second, there is impotency more or less complete in the lower limbs, although sensibility remains, the exterior parts of the cord alone being attacked. In the treatment of these cases it is necessary to act promptly and energetically, making persistent use of cauterization along the spine. The pain must be quieted, and the injection of morphine alone will succeed in allaying it. Careful attention must be given to the functions of defecation and urination so often in disorder in these cases, and one of the aggravating circumstances of the paraplegias is, either stubborn constipation or incontinency of fecal matter exists. For the constipation a drastic treatment is required, not only to establish a normal condition in the stools, but to act as revulsives, and thus modify the circulation in the marrow and in the membranes. Where there is incontinency most careful cleanliness must be observed. Inflammations of the marrow are so often accompanied by troubles of nutrition, and

in spite of all precautions, troublesome sores may spread on the sacrum and around the anus as effects of dorsal decubitus. The urinary troubles are still worse than the intestinal. At first there will be tenesmus, the effect of spasm of the bladder. This is soon followed by retention or incontinency. If retention, the catheter must be used; cystitis may follow, and the patient show signs of putrid absorption, when it will be necessary to drench and wash out the bladder with anti-fermentable lotions, giving internally benzoic acid, essence of sandal, buchu, etc.

If retention has its troubles, incontinency has no less serious ones; the incessant flow of urine increasing the already existing cause of local gangrene and erysipelatous inflammation. When the symptoms of inflammation have subsided, efforts may be actively directed towards bringing back motion of the lower limbs. Massage, frictions and electricity will now render valuable services.

Myelitis by compression requires the same local treatment as meningo-myelitis. It requires also special treatment to remove the cause. In the case of cancer in the marrow or membranes, we can do nothing but soothe the pain. On the contrary, if we have a case of Pott's disease, we can try orthopedic means and reëstablish, to a great extent, the straightness of the vertical column.

Coming to the treatment of the medullary sclerosis and to the type they most often present, viz: progressive locomotive ataxy, a disease so often beyond the reach of science, however cases have been and are healed, though these cases are exceptions.

Tessier says: "In spite of periods of calm and respite which may last for months, and even years, the patient is doomed: but in syphilitic ataxias, if taken right in the beginning, there is hope of recovery."

The first condition in the treatment of sclerosis of the posterior cords is to avoid everything that could cause or provoke congestion. The patient must be forbidden all prolonged muscular fatigue, all sexual relations; use should be made of the most energetic revulsives along the vertebral column when the symptoms of congestion appear. This congestion always

precedes the hyperplastic process. Baths and thermal treatment play an important part.

Lastly, to the treatment must be added electricity. Rosenthal and others have insisted upon the curative powers of electricity in medullary affections. It should always be employed, and it is entirely useless to electricize the muscles. It should act directly upon the cord. With this in view the positive pole should be placed over the lumbar region, and the negative upon the cervical, in order to produce an ascending current, which gives better results in ataxic cases than the descending current. It is not well to commence with a very strong current, which, with *some*, aggravates the pains which these cases suffer. I have found bromide of potassium, in thirty-grain doses, three times per day, and continued for several weeks, to give great relief to these severe and most troublesome pains. In atrophic infantile paralysis electricity is proven to be excellent. Recent investigations show this atrophy to be connected with a central myelitis, bearing upon the anterior horns, destroying or altering the nerve cells. These alterations destroy muscular groups. We can combat this condition best by the continuous current, by the baths, massage, and everything to increase nutrition. These means have a real effect if adopted at the commencement, but unfortunately the incipient period passes, in most cases, unobserved, and often the aid of a physician is sought when too late.

THE AMERICAN PEDIATRIC SOCIETY'S REPORT ON
THE COLLECTIVE INVESTIGATION OF THE
ANTITOXIN TREATMENT OF LARYNGEAL
DIPHTHERIA IN PRIVATE PRACTICE.

1896-1897.

In the second and supplementary investigation, the aim has been to ascertain: (1) What percentage of cases of laryngeal diphtheria recover without operation under antitoxin treatment? (2) What percentage of operated cases recover? The report

now submitted may properly be limited to answering these two inquiries.

Since the beginning of the general use of intubation, no disease has been more thoroughly observed and more fully reported than laryngeal diphtheria. Operative cases, especially, without hesitation, whether ending fatally or favorably, have been fully and promptly put on record. The result has been a collection and tabulation of cases available for control, such as few diseases offer. There are thousands of intubation cases before the days of antitoxin, and thousands since, available for comparison. It is then in cases of laryngeal diphtheria, especially those requiring operative interference, that we may apply the crucial test of the value of the antitoxin treatment.

Circulars were distributed throughout the United States and Canada, the following means being employed: Contributors to first reports, members of the Society acting as agents for their respective localities, boards of health, local medical societies and antitoxin manufacturers. At the outset in this connection, it is a pleasure to acknowledge that the labors of the committee have been much lightened by the uniform good-will of all addressed, more aid coming spontaneously than in the previous investigation. It is also a pleasure to especially acknowledge the Society's indebtedness for efficient aid in distributing circulars and securing returns to the H. K. Mulford Co., Parke Davis & Co., Lehn & Fink (Gibier's), the Health Departments of Chicago, St. Louis, New Orleans, Denver, San Francisco, Boston, Washington, Buffalo, Providence, Ann Arbor, Newark, Montreal, Toronto, and others.

To the New York Health Department is due the thanks of the Society for every possible courtesy in distributing blanks, and, through their inspectors, of securing returns of operative cases.

In order to reduce sources of error it was desirable to bring together a large number of cases, from widely distributed localities, from many different observers and operators, and from a period of time including all seasons of the year. All returns have been examined by the committee, and only such cases accepted as bore satisfactory evidence that they were first of all

diphtheria, and secondly that the lesion had invaded the larynx.

A total of 1704 cases of laryngeal diphtheria are ours for present study. A few cases (228) had not satisfactory evidence that there was laryngeal involvement; indeed, some were reported through misunderstanding the fact that only laryngeal cases were wanted, and a few were reported in which there was no mention that antitoxin was used. These cases are, of course, not included in the number referred to above; 218 of them ended in recovery and only 10 were fatal.

In a total of 1704 antitoxin-treated cases of laryngeal diphtheria, there was a mortality of 21.12 per cent. (360 deaths).

TABLE OF ALL CASES SHOWING AGE AND RESULT OF TREATMENT.

	Fatal Cases.	Recoveries.	Totals.	Mortality.
1 year and under.	25	35	60	41.66 per cent.
1 to 2 years, - -	77	219	296	26.01 per cent.
2 to 3 years, - -	81	240	321	23.75 per cent.
3 to 4 years, - -	42	216	258	16.27 per cent.
4 to 5 years, - -	47	160	207	22.70 per cent.
5 to 10 years, - -	72	345	417	17.26 per cent.
10 to 15 years, - -	9	64	73	12.32 per cent.
15 to 20 years, - -	2	24	26	7.65 per cent.
Over 20 years, - -	5	17	22	22.72 per cent.
Unknown, - -	0	4	4	
	360	1344	1704	21.12 per cent.

CASES NOT OPERATED ON.

The first inquiry of the circular was, What percentage of cases of laryngeal diphtheria recover without operation under antitoxin treatment?

Of 1704 total cases, 1036 were not operated upon (60.79 per cent). Of these, most did not require operative interference, a few cases were thought to require it, but operation was refused. All cases are included, and it will be noted there are no eliminations.

Among the 1036 cases not operated on, there was a mortality of 17.18 per cent. (178 deaths), or, to answer the inquiry of the circular exactly, of 1036 cases not operated on, 82.82 per cent. recovered (or 858 cases).

As good as is this percentage of recovery in so large a number of cases of diphtheria of the severest type, it is believed it is not as good as it ought to be. Cases of laryngeal diphtheria not requiring operation, according to the testimony of consulting intubationists, are seldom heard from a second time, and less often find their way into reports. It was formerly estimated that about 10 per cent, of cases of laryngeal diphtheria recovered without operation. The present report shows that in 1036 cases 82.82 per cent. recovered.

CASES OPERATED UPON.

In analyzing this class of cases, it is believed a more exact conclusion as to the value of the antitoxin treatment can be arrived at than in the non-operative.

There will be entire harmony of opinion as to the severity of laryngeal diphtheria which requires operative interference. In the last report the recoveries had crept up so high in the one hundred cases that it seemed more natural to speak of the percentage of mortality.

In this connection it is interesting to inquire what were the most reliable statistics of intubation, taking cases as they occurred, without selection, in pre-antitoxin days. In 5546 intubation cases collected by McNaughton and Maddren in 1892, the mortality was 69.5 per cent., or, to bring the facts into line, 30.5 per cent. recovered.

O'Dwyer's personal experience, in private consultation, brings us more nearly face to face with the old-time experience with diphtheria. Note that the following 500 cases came under the observation and care of one practitioner, a skilled operator, extended over a dozen years of time, and therefore included all types of the disease.

Exclusive of the first 100 cases of intubation, which he (O'Dwyer) regards as experimental, the results stand as follows:

2d,	. . .	100 intubations,	recoveries,	27 per cent.
3d,	. . .	100	" "	30 "
4th,	. . .	100	" "	26 "
5th,	70 in the	100	" "	27 "

Total percentage of *recoveries*, 27.56 per cent. When he had reached 70 in the fifth hundred something occurred which carried the phraseology up over the divide, so that it was appropriate to speak of percentage of *mortalities*. At this point in history antitoxin arrived, and interrupted forever the old series. In O'Dwyer's next 59 cases the *mortality* was 14 deaths, or 23.7 per cent.

In a total of 1704 laryngeal cases there were 668 cases operated upon. In the 668 there were 182 deaths, or a mortality of 27.24 per cent. In the former report, in 553 intubated cases the mortality was 25.9 per cent. In approximate figures there is a difference between $27\frac{1}{4}$ per cent. and 26 per cent.

SUMMARY.

Sixty thousand circulars were distributed throughout the United States and Canada.

Time allowance, the eleven months ending April 1, 1897.

Whole number of cases in this report, 1704; mortality, 21.12 per cent. (360 deaths).

The cases occurred in the practice of 422 physicians in the United States and Canada.

Operations employed:

(a) Intubation in 637 cases; mortality, 26.05 per cent. (166 deaths).

(b) Tracheotomy in 20 cases; mortality, 45 per cent. (9 deaths).

(c) Intubation and tracheotomy in 11 cases; mortality, 63.63 per cent. (7 deaths).

Number of States represented, twenty-two, the District of Columbia and Canada.

Non-operated cases, 1036—60.79 per cent. of all cases; mortality, 17.18 per cent, (178 deaths).

Operated cases, 668, or 39.21 per cent. of all cases; mortality; 27.24 per cent. (182 deaths). Two facts may be recalled in connection with this paragraph. (1) That before the use of antitoxin it was estimated that 90 per cent. of laryngeal diphtheria cases required operation, whereas now, with the use of antitoxin, 39.21 per cent. require it. (2) That the percentage

figures have been reversed, formerly 27 per cent. approximately representing the recoveries, whereas now, under antitoxin treatment, 27 represents the mortality. To put it in other words, before the use of antitoxin, 27 per cent. recovered; now 73 per cent. recover, and this in the severest type of diphtheria.

The present report will strike many members of the Society as revealing a mortality too large in each of the two classes. The mortality is large—larger than the personal experience in private practice of many would expect.

The reasons for this are (1) that antitoxin is still used too late, either from procrastination on the part of the physician, or objection on the part of the friends, or (2) in a half-hearted way, which shows itself in doses from one-tenth to one-fourth as large as they should be. In truth, both the physicians and the friends of the patient are timid.

This report, it must be admitted, shows too large a mortality. In the opinion of the Committee it is a larger mortality than will ever be shown again. Antitoxin is gradually being used earlier in the disease, and it will soon be used in sufficient doses.

To the Society, the Committee desires to say that it has sought to carry out their wishes in putting antitoxin on trial, to accept no testimony that did not bear the stamp of reliability, that it has employed the methods approved in the case of the first investigation and report, and that it has confined its work to definitely answering the main questions which the Society and profession now have in mind. Points that were settled in the first report and have since been corroborated by general medical literature are not again taken up.

If the Committee is asked to put forth the three most valuable points established in this eleven months' work, they are:

1. The mortality of laryngeal diphtheria at present rests at 21.12 per cent.
2. That 60 per cent., approximately, have not required intubation.
3. That the mortality of operated cases is at present 27.24 per cent.

(Signed) W. P. NORTHRUP, M.D.
JOSEPH O'DWYER, M.D.
L. EMMETT HOLT, M.D.
SAMUEL S. ADAMS, M.D.

THE COMMITTEE RECOMMENDS:

Antitoxin should be given at the earliest possible moment in all cases of suspected diphtheria.

Quality.—Of the products on the market some have, by test, been found to contain one-half to one-third the antitoxin units stated on the label. Select the most concentrated strength of an absolutely reliable preparation.

Dosage.—All cases of laryngeal diphtheria, the patient being two years of age or over, should receive as follows:

First dose—2000 units at the earliest possible moment.

Second dose—2000 units, twelve to eighteen hours after the first dose if there is no improvement in symptoms.

Third dose—2000 units, twenty-four hours after the second dose, if there is still no improvement in symptoms.

Patients under two years of age should receive 1000 to 1500 units, the doses to be repeated as above.

Society Reports.

RICHMOND ACADEMY OF MEDICINE AND
SURGERY.

REGULAR MEETING HELD MAY 11, 1897.

Dr. J. N. Upshur, President, in the chair.

Dr. Mark W. Peyser, Secretary and Reporter.

Dr. W. S. Beazley read a paper on

SOME OF THE EVILS THAT THREATEN THE MEDICAL PROFESSION.

REPORT OF CASES.

Dr. Geo. Ross reported the following cases:

MALIGNANT DISEASE IN CHILD'S MOUTH.

Boy, age 8 years. Father, mother and uncle died of consumption. Aunt has it. Grandmother died of apoplexy. An abscess in the lower jaw, due to a decayed molar, was opened several times, and now, in the cavity, there has appeared a

foreign growth, about the size of a guinea-egg, and apparently of a malignant character. He reported the case because of the rarity of malignant growths in child-hood.

MYELITIS AND PARAPLEGIA. PARTIAL RECOVERY. THEN RIGHT AND, LATER, LEFT HEMIPLEGIA. PARALYSIS OF DIAPHRAGM AND DEATH.

Male, white, aged about 58 years; wore low quartered shoes the whole of one rainy day, and the afternoon, without changing them, put on rubber shoes. The next morning he complained of chilliness and malaise. Walking became more and more difficult until the fifth day, when it was an impossibility to walk. A diagnosis of acute myelitis was made with paraplegia—paralysis of the bladder and rectum, etc. He removed South, remaining an ataxic, then went North; and consulted various authorities, Dr. Seguin among others.

About twelve days ago, while in the city again, he became absolutely paralyzed on the right side, and was taken to the Virginia Hospital. Six days ago, there was a second paralytic attack involving the left side and the diaphragm. In twenty-four hours, articulation became impossible, and he died.

The patient was a student and literary man, with no syphilitic or gouty history, and of regular habits.

The President said Dr. Ross's case was very interesting, especially because of the absence of gouty or syphilitic history. He thought there must have been some condition, back of the myelitis, tending to produce tissue change. The patient might have *inherited* gout, and along with it slow changes in the vascular system, as deficiency of the elasticity of the vessels, or a change due to the cold going to the brain and slowly acting upon the nervous tissue.

He reported the following case:

SUPPURATIVE SALPINGITIS. RECOVERY UNDER MEDICAL TREATMENT.

Woman age 23 years; unmarried; seen January 26, at which time she had been confined to bed for five months. She complained of pain at all times; and between 12 M. and 3 P. M. of violent attacks in the hypogastrium.

There was also dysmenorrhœa. Digital examination revealed the fact that she was not a virgin. The uterus was firmly fixed in the cul-de-sac, a mass was found as large as an orange, and boggy to the touch. A dirty discharge came from the cervix. There was occasional difficulty with micturition. After tonic treatment and the use of douches at home, she was taken to the Old Dominion Hospital for operation, and Dr. J. W. Long was called in consultation. They agreed that the case was suppurative salpingitis, due in all probability to gonorrhœa. Twice daily douches of normal saline solution, as hot as could be borne were given, followed by the introduction of a tampon anointed with 25 per cent. ichthyol unguent.

At the end of six weeks, the effusion had entirely disappeared, and the only evidence of pelvic trouble was the dirty discharge.

Menstruation at this time was still irregular, but not attended by pain. Ten days ago, the uterus was dilated and curetted (there being hardly any suppuration), and packed with iodoform gauze. In three days she returned, and very little discharge was seen. He now uses a syringe (capacity, one drachm) to inject pure peroxide of hydrogen, and then swabs out the uterus with ichthyol. Absolute recovery is evidenced, and that without operation. Tonic treatment consisted in the administration, three times daily, of a pill of maganese, iron, and nuxvomica.

Dr. Jacob Michaux reported in detail a case of *Abscess of the Kidney*, originating from a neglected case of inflammation of the bladder. Urine secreted, although about one-half of kidney was taken up in an abscess cavity. [Dr. Michaux has the case still under treatment, and as the other kidney is becoming involved, he will reserve a full report of the case until a future issue of this journal.]

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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This JOURNAL is published on the fifth and twentieth of each month, and any subscriber failing to receive his copy promptly, is asked to announce the fact to this office.

Cuts will be provided for any original communications (sent to this JOURNAL only) requiring illustrations, free of cost to the author.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and any remittances by P. O. Order, Draft or Registered Letter, made payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

WILMINGTON CITY HOSPITAL.

NC Med J (OS) 39: 382-383, # 11, June 5, 1897

We stated some time since that certain changes had been effected in the management of this institution whereby the local profession became more intimately associated with the hospital. A Board of Regents was created, and composed of five physicians elected from the local physicians. Rules and regulations were adopted for the governance of the hospital officers and inmates of the institution. Still further changes are about to be made, and it is hoped will prove a step in advance.

Dr. W. W. Lane, who has for a number of years been Superintendent of the hospital, has tendered his resignation, to take effect July 1st, 1897. On the recommendation of the Board of Regents, this vacancy will not be filled by the election of a permanent officer, but the custom of other hospitals will be followed. The plan of the Board of Regents is to select each year from the six applicants for license receiving the highest general averages before the Board of Medical Exam-

iners, one who will receive the appointment as Resident Physician of the Wilmington City Hospital, to serve two years, the first year as assistant, and the second as house physician. He will reside in the hospital, be furnished board and laundry, and will also receive a small salary. This will open a very desirable opportunity for a young man just beginning practice. It assures him a small income above his necessary living expenses, and enables him to obtain practical experience with the diseases and class of patients he will meet in his daily rounds of private practice. In fact, it will be of more real advantage to him than a service in one of the big northern hospitals, where he would be limited to one branch of practice—medical or surgical—and where, while he would doubtless see a greater number of cases and a greater variety of *curious* diseases, he would learn a great deal only to have to unlearn it when he should have begun practice in North Carolina. We therefore expect to see this appointment sought after by the applicants for license, and that the desire for the appointment will serve as an additional stimulus to the members of the class. Just how the selection will be made we are not advised, but suppose the Board of Regents will devise some satisfactory plan. As the applicants do not hear the result of their examinations until they reach home, it would be impossible to designate the eligible persons until the class had disbanded. Then it is hardly probable that those six would be willing to come together for another examination.

Reviews and Book Notices.

Syringomelia. An Essay to which was awarded the Alvarenga Prize of the College of Physicians of Philadelphia for the Year 1895. By Guy Heinsdale, A.M., M.D., Fellow of the College of Physicians of Philadelphia and of the American Academy of Medicine, etc., etc. The International Medical Magazine Company, Philadelphia. For sale by Messrs. P. Blakiston Son & Co., Philadelphia. Price \$1.00.

This monograph of seventy-two royal octavo pages has already appeared in the International Medical Magazine. The

author has evidently made a thorough study of the literature bearing upon this disease and adds to the list two unpublished cases. He has studied closely its symptomatology and pathology, and says that the statement that a diagnosis can only be made at the autopsy has been relegated to history. The bibliography is very extensive, amounting to 514 references.

The Diseases of the Stomach. By Dr. C. A. Ewald, Extraordinary Professor of Medicine at the University of Berlin, etc., etc. Translated and Edited, with numerous additions, from the third German Edition by Morris Manges, A.M., M.D., Assistant Visiting Physician to Mount Sinai Hospital. Second revised edition. D. Appleton & Co., New York. 1897.

Dr. Manges performed a notable service to the American profession when he gave them, in 1892, a translation of Professor Ewald's work. Since that time there has been a thorough revision of the German edition, and this second American edition is based upon that revision. The author's text has been followed nearly always, even where more recent investigation has modified his statements. In these cases foot-notes giving current opinions have been appended,

To those who are familiar with the first edition of this book, we need say nothing of the thoroughness with which the author has presented his subject, and the pleasing style in which it has been translated. One hundred pages of text have been added, a large portion of these being devoted to the advances made in methods of examination. The number of illustrations have also been increased from thirty to forty-six. The mechanical work is fully up to the high standard of the publishers.

Abstracts.

QUACK ADVERTISEMENTS IN OUR DAILY NEWSPAPERS.—While all this discussion is going on concerning what is pure and the proper education of the people, no attention appears to be paid to the shameful, lying and indecent advertisements

which are so common in all daily and weekly newspapers, good and bad. The high-minded utterances of the editorial columns are so different and so distinct from the blatant lies in the rented department of the papers that they remind every casual reader of the fact that he who sups with the devil must have a long spoon. While no one will deny that such a practice is openly abetting fraud, there appears to be no effort on the part of even the most respectable periodicals to discourage or check the growing evil. In all the leading newspapers there appear regular bids from the professional abortionist, in bold defiance of all ordinary law or common decency. Many of these quacks have been repeatedly indicted for criminal practices, and their cases have been freely reported in the very papers which publish their standing advertisements. Even religious journals sell their spaces to these humbugs, and under the guise of uplifting the spirit on the one hand, degrade and destroy the body on the other. The quick relief of discharges by the use of balsams in capsules needs no detail explanation for the man with gonorrhea, nor is, "the decline of manhood" mistaken for overwork, consumption, diarrhea or grippe. The "female pills" appeal to the erring who become the unfortunate victims to preventable accidents, while every reader who has a womb is informed that it can never be kept healthy without the use of a notorious grandmother's tea. The illustrated idiots who are cured by snuffs, inhalations, vegetable compounds, and soaps fill the sold spaces with the most transparent lies, and carry with them the most outrageous insults to common sense and ordinary judgment. It is absurd to suppose that the conductors of these papers do not know better than to give such frauds a hearing, and yet the editorial columns are constantly aiming to educate the people, to protect the real interests of the masses, and to expose wrongdoing in every other line.—*Med. Record.*

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A similar point has been raised before and affirmatively settled in the courts of St. Louis in the case of Wm. T. Bevan, reported by the editor of this journal, which we reproduce, wherein the writer, with other physicians, maintained the affirmative of the proposition and they were sustained by evidences before the jury and the jury's decision. The subject of aphasia was then comparatively new, and its literature far less than at present, while the knowledge of this subject was less extensive, definite and elaborate than now appears from the later researches of Bartholow, Mills, Eskridge and others in this country, to say nothing of European contributors, which, however, have not equalled those of American writers, if we except the physiological experimentations of Heitzig, Ferrier and others.—*Alienist and Neurologist*.

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Jour.) concludes as follows: 1. Vaginal hysterectomy should be confined to cases in which the disease is limited to the cervix, or the cervix and mucous membrane *only* of upper part of vagina, or to those in which the disease, having involved these points, has also begun to develop upon the mucous lining of the uterus itself. To this may be added cases of adenoma and carcinoma uteri in their early stages.

2. What class of cases of cancer of the cervix are best treated by incision by the galvano-cautery, will be better discussed by Dr. Byrne than myself, for, as stated in the earlier of this paper, my experience in this line of treatment has been very limited.

3. In all cases in which there is suspicion of extension of the disease beyond the limits previously mentioned, whether into the parametrium, the folds of the broad ligaments, the ovaries or the cul-de-sac, the combined abdomina-vaginal operation is by all means the most appropriate, if we resort to any radical operation. Whether the operation described by Dr. Clark, of the Johns Hopkins Hospital, or that of Dr. Polk or Dr. Pryor, as described by each of these gentlemen within the past year, is to be made use of is, in my opinion, simply a matter of personal election. Either one is as radical as we could wish.

PROPHYLAXIS OF THE PUERPERIUM.—Dr. Puls (*Annals of Gynecology and Pædiatrics*, January), concludes: 1. Puerperal septicæmia is the result of contact infection. 2. Subjective antiseptics prevents infection. 3. Objective antiseptics should be practised only in cases of operative interference, but the prophylactic vaginal douche is not a safeguard against infection; the vaginal surfaces must be cleansed similarly as before a gynæcologic operation. 4. The secundines must be delivered *in toto*, since the health of the lying-in depends upon a complete evacuation of the uterine cavity and a further source of infection is wanting in the absence of placental or membranous remnants. 5. A normal lying-in period is unnecessarily tampered with by irrigating the genital tract. 6. Obstetric nurses ought never to nurse contagious diseases.—*Med. Record*.

INTESTINAL SUTURING.—A reader of the *Bulletin* complains of the dearth of information in his text-books, and in the several medical journals for which he subscribes, on the subject of intestinal suturing. The qualifications of a good suture, according to Treves, are:

It should bring into contact two broad surfaces of peritoneum, these surfaces belonging, respectively, to the bowel above and below the breach to be closed.

It should effect a complete closure of the wound, the test being that the seam should be water-tight.

The mucous membrane should be excluded.

The suture should not strangulate the free margin of the intestine, with which it is concerned.

The suture should not pass through both the mucous and serous coats. Such a suture, especially when made of silk—would tend to act as a seton, and would be apt to conduct the intestinal fluids to the outer surface of the bowel, by means of capillary attraction.

The suture should be simple, should be easily introduced, and should be capable of effecting a rapid closure of the wound.

The thread should take so firm a hold of the tissues that there is no danger of its cutting out, when strain is put upon it, as may be the case if the viscera becomes distended.

The chief methods of applying intestinal sutures are: Dupuytren's; Gely's; Cushings right-angled continuous suture; Lembert's; Czerny's; Halstead's, and Semi's modification of Jacob's method of applying suture in invaginating method of uniting free ends of the gut in resection. Lembert's suture has stood the test of time, and it may be safely said that it is, on the whole, the best form of suture. It may be supplemented by a second row of stitches, as Czerny advises. The best suture material for this work is fine silk; though some prefer fine catgut for small intestinal wounds.

In special cases a double row of Lembert silk sutures is best in burying the stump of an amputated appendix.

In enterotomy, the wound in the abdominal parietes should be partly closed with silkworm-gut sutures, which are introduced at both extremities of the wound. These should include

the peritoneum, bringing it as near the cut margin as possible. The wall of the bowel should be stitched to the skin-margin, which tightly surrounds it on all sides, with fine silk. These should involve skin and serous and muscular coats of bowel. After opening the gut, silkworm sutures should be passed laterally from the skin toward the gut, transfixing the whole thickness of the intestinal wall, to hold the gut in position.

In closing the abdominal wounds, interrupted silk or silkworm-gut sutures are best, including the peritoneum, and passed from within out; or the peritoneum, muscles and skin may be closed separately by means of continuous silk or silkworm-gut sutures.—*Amer. Medico-Surgical Bulletin.*

THE PERMANENT OR LATER RESULTS OF FRACTURES OF THE SKULL.—Dr. William M. Bullard (*Boston Med. and Surg. Jour.*) reaches the following conclusions:

(1) Out of 70 persons with fractures of the skull, 37 presented no symptoms when examined some time later.

(2) Seven persons only presented serious symptoms, and in at least four of these it is doubtful whether the symptoms were due to the injury.

(3) The most frequent consequences found were headache, deafness, dizziness and inability to resist the action of alcohol on the brain.

(4) Out of the 15 cases in which operation (trephining, etc.) was performed, 12 had no symptoms; in another it was doubtful whether the symptoms present were due to the injury; in another the symptoms were slight (headache rare, tension over wound while lying in bed); the other was deaf, but had no other trouble. We are justified, therefore, in concluding, so far as our statistics lead, that those cases in which trephining was performed have shown much better results, as far as the symptoms discussed are concerned, than those in which no operation was performed.

Therapeutic Hints.

INTESTINAL ANTISEPTIC:

Naphtola	3	(℥ ii.)
Chloroformi	15	(℥ iii. $\frac{3}{4}$)
Olei Ricini	100	(℥ iii. ℥ v.)
Ess. Menth. Piperitæ	5	(℥ iv.)

Sig.: To be taken in a dessertspoonful of wine or in beer.—
La Presse Médicale.

CHRONIC DIARRHOÆ:

℞.—Zinci Oxidi	gr. viij
Cretæ Preparatæ	gr. ij
Ext. Opii	gr. $\frac{1}{4}$
Mucilaginis	q. s.

Ut f. pil 2. To be taken 3 or 4 times a day.—*Yeo.*

ACNE.—Dr. G. T. Elliott, (Post Graduate) recommends the following as a soothing application when the inflammatory symptoms are active.

℞—Magnes. Carbonat.	
Zinci Oxidi	aa 3 i
Hydrarg. Bichlor.	gr. j to ij
Aq. Rosæ	℥ jv—M.

Miscellaneous Items.

Mr. Louis Pascal Casella, said to be the first to construct a registering clinical thermometer, died in England April 23, aged 86 years.

UNIVERSITY COLLEGE OF MEDICINE.—Among the graduates of the University College of Medicine, we note the following from this state—G. A. Brown, Bean Poplar, N. C.; L. O. Hays, Wilson, N. C.; H. H. Kirby, Lenoir, N. C.; J. O. Mathews,

Taylor's Bridge, N. C.; H. G. Nicholson, Oakville, N. C.; Fred. M. Parker, Enfield, N. C.; J. E. Smithwick, Jamesville, N. C.; A. K. Tayloe, Washington, N. C.

THE FIRST OVARIOTOMIST.—An attempt having recently been made to deprive Dr. McDowell of the honor of having performed the first ovariectomy and to transfer it to Robert Houston, of Glasgow, Mr. Greig Smith has resisted the evidence in an article in the *Practitioner* for March, and decides without hesitation for McDowell. Houston, he says, believed that ovarian cyst was a simple dropsy of the ovary, and was to be treated by tapping, or, if there were secondary cysts, by incision. His case was one of incision, and he clearly describes it as such. No one of his contemporaries says it is anything more than incision. One of them, indeed (Donald Monro, in his 'Treatise on the Dropsy,' second edition, London, 1756), definitely claimed it as such, and uses its success as an argument against extirpation." But although not an ovariectomy, Houston's was, he says, a bold position, and for such he deserves great credit. To him is also due the honor of having been the first to suggest operation for extra-uterine foetation.—*Med. Record.*

FOND RECOLLECTIONS.

The following beautiful poem is going the rounds of the medical press, and we cannot resist the temptation to pass it on. We do not remember ever hearing it recited at any of the Eugene Field church entertainments that were so fashionable a little while ago, yet it is more sweet and "touching" than many of his productions that are so popular for fair elocutionists. One of our contemporaries asserts that Field said that once when his wife took his little boy away on a visit, he found in their absence that he could not sleep till he got up and poured hot water on his shirt, but we do not believe this.

"When Willie was a little boy
Not more than five or six,
Right constantly did he annoy
His mother with his tricks.

Yet not a picayune care I
For what he did or said,
Unless, as happened frequently,
The rascal wet the bed.

Closely he cuddled up to me
And put his hand in mine,
Till all at once I seemed to be
Afloat in seas of brine.
Sabeian odors clogged the air,
And filled my soul with dread,
Yet I could only grin and bear
When Willie wet the bed.

'Tis many times that rascal has
Soaked all the bedclothes through,
Whereat, I'd feebly light the gas
And wonder what to do.
Yet, there he lay so peaceful like;
God bless his curly head;
I quite forgave the little tyke
For wetting of the bed.

Ah me, those happy days are flown,
My boy's a father too,
And little Willies of his own
Do what he used to do.
And I, ah, all that's left of me
Are dreams of pleasure fled;
Our boys ain't what they used to be
When Willie wet the bed.

Had I my choice, no shapely dame
Should share my couch with me,
No amorous jade of tarnished fame,
No wench of high degree;
But I would choose and choose again
The little curly head
Who cuddled close beside me when
He used to wet the bed."

October 19, 1895.

EUGENE FIELD.
—*Western Medical Review.*

THE PUBLIC SERVICE,

UNITED STATES MARINE HOSPITAL SERVICE.

For the week ending May 22d, 1897:

Bailhache, P. H., surgeon, detailed to represent service at meetings of American Medical Association to be held in Philadelphia, Pa., June 1st to 4th, 1897. May 20, 1897.

Stoner, G. W., surgeon, detailed to attend meetings of American Medical Association. May 20, 1897.

Irwin, Fairfax, surgeon, detailed to attend meetings of American Medical Association. May 20, 1897.

Prochazka, Emil, assistant surgeon, when relieved at Reedy Island quarantine, on or about May 28th, to report at Bureau for physical examination. May 20, 1897.

Thomas, A. R., assistant surgeon, to proceed from Boston, Mass., to Reedy Island quarantine for duty, to arrive there on May 28th, 1897.

Greene, J. B., assistant surgeon, to proceed on May 23d, from Detroit, Mich., to Evansville, Ind., for temporary duty. May 18th, 1897.

Grubbs, S. B., assistant surgeon to report to medical officer in command, New York, N. Y., for temporary duty May 18th, 1897. To proceed from New York, N. Y., to Detroit, Mich., for temporary duty, May 22d, 1897.

Appointment.

Samuel B. Grubbs, of New York, commissioned as assistant surgeon, May 17th, 1897.

Reading Notes.

WHAT WE THINK OF PYROCTIN.—We take great pleasure in calling our readers attention to a strictly up to date *fever killer* and anodine. "*Pyroctin*." Having many points of merit, we think it need only be tried to convince you of its superior character. Though it accomplishes such big results, reducing fever and pain, yet it is perfectly harmless and conveniently administered. It does not *depress the heart's action*, and is soluble in water with no unpleasant taste. We have no doubt such information will be gratefully received by the up to date Physician,

who is looking towards the betterment of his patients, and the success of his practice. He will find *Pyroctin* a valuable article, that has long since passed the experimental stage, and has established itself in the favored list of some of the best Physicians.

DR. C. MORROSA, 1045 MISSION ST., SAN FRANCISCO, CAL.,—says: I have used S. H. Kennedy's Extract of *Pinus Canadensis* (white) in one case of gonorrhea. A lady had a discharge for months and had been treated with iodine crystals in water as an injection with no effect except to soil her clothing, I gave her a bottle of S. H. Kennedy's White *Pinus Canadensis* giving directions for use as injection internally, gave fluid ext. prunus virg. as a tonic. She lives in Alameda, and only yesterday she sent me some other sufferers, telling them I cured her. I will say in conclusion that your preparations are good, I have used them in some minor cases that I did not think worth noting at the time, always with success.

AN ADJUNCT TO THE DIET IN PULMONARY DISEASES.—In an article on this subject Dr. J. C. Lawrence, of Boston, justly observes that no class of practitioners can better appreciate the value of food in an assimilable and concentrated form than those who make a specialty of the diseases of the throat and lungs, since the sufferers that come under their care not only require the most nourishing, but also the most condensed food. They are often unable to take large quantities not only from the painful operation of swallowing, but also from the overpowering disgust induced by the sight and smell of most prepared dishes. In view of these circumstances it is interesting to note the author has found in Somatose a valuable dietetic adjunct in diseases of the throat and lungs. Amongst its advantages he mentions its high percentage of soluble albumoses, its freedom from deleterious changes and its ease of administration owing to its solubility in all ordinary fluids. He states that he has yet to find a case where it was necessary to give it per rectum, as it is wholly non-irritant to the most delicate stomach, and retained where ordinary food would be rejected or cause distress. When given after tonsillotomy or other surgical operations upon the throat and naso-pharynx Samatose in form of biscuit was taken with much less discomfort than liquid foods, while it proved of great value during the period of convalescence following acute febrile conditions, especially influenza with its sequelæ and in bronchitis, laryngitis and otitis media suppurativa.

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It Differs in Its Effects from all Analogous Preparations; and it possesses the important properties of being pleasant to the taste, easily borne by the stomach, and harmless under prolonged use.

It has Gained a Wide Reputation, particularly in the treatment of Pulmonary Tuberculosis, Chronic Bronchitis, and other affections of the respiratory organs. It has also been employed with much success in various nervous and debilitating diseases.

Its Curative Power is largely attributable to its stimulant, tonic, and nutritive properties, by means of which the energy of the system is recruited.

Its Action is Prompt; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; hence the preparation is of great value in the treatment of mental and nervous affections. From the fact, also, that it exerts a double tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE—CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, finds that **no two of them are identical**, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, in the property of retaining the **strychnine in solution**, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "**Syr. Hypophos. Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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MR. FELLOWS,
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Prof. of Practical Chemistry
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ventieth Year.

JUNE 20, 1897.

Vol. 39. NO. 12

NORTH CAROLINA MEDICAL JOURNAL.

PUBLISHED SEMI-MONTHLY AT \$2.00 PER ANNUM.

Robert D. Jewett, M.D., Editor.

[Entered at the Post-Office at Wilmington, N. C., as Second-class mail matter.]

Treatment of TYPHOID FEVER

A LATE number of the *Medical Record* contains an illustrated article on the abortive treatment of Typhoid as inaugurated by Dr. Woodbridge. The temperature charts of a number of cases treated in Bellevue Hospital are given, and the whole subject so completely reported that it is difficult to understand how there can be any mistake. Dr. Woodbridge has been accused of treating cases which were not typhoid, and yet reporting them as such. In these cases treated at Bellevue, however, the blood was examined by the bacteriologist of the Board of Health of New York City, and each specimen gave a positive reaction of the typhoid bacilli of Koch-Eberth. Therefore, the cases must be accepted as those of true typhoid fever. The patients had no baths, and were given only the Woodbridge treatment. In each case the disease was shortened, there was an absence of delirium, the tongue remained moist, there was a rapid disappearance of abdominal tenderness, and of tympanites and all offensive odor from the stools.—*Journal of Practical Medicine*, March, 1897, page 378.

**BEWARE, HOWEVER, OF THE PREPARATIONS
ON THE MARKET THAT DO NOT BEAR OUR
LABEL. OURS AND ONLY OURS ARE EN-
DORSED BY DR. WOODBRIDGE.**

All of our data upon this subject is at the disposal of the profession. Drop us a postal card, and our monographs, reports of cases and reprints of late contributions to the medical press will be promptly forwarded.

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NORTH CAROLINA MEDICAL JOURNAL.

A SEMI-MONTHLY JOURNAL OF MEDICINE AND
SURGERY.

VOL. XXXIX. WILMINGTON, JUNE 20, 1897. No. 12

MINUTES OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

Forty-fourth Annual Meeting, held at Morehead City, June
8, 9 and 10, 1897.

— — — — —
The 44th annual meeting of the Medical Society of the State of North Carolina was convened in the Teachers Assembly Hall, Morehead City, June 8th, 1897, President P. L. Murphy, M.D., of Morganton in the chair.

The convention was called to order by Dr. Francis Duffy, of Newbern, chairman local committee of arrangements.

Prayer was offered by Rev. Mr. Massie, after which Mr. W. F. Arendell, of Morehead delivered the following

ADDRESS OF WELCOME.

Mr. Chairman, members of the Medical Society of the State of North Carolina, ladies and gentlemen: It is with great pleasure, in behalf of the Mayor and the citizens of our town, that I appear before you this morning to bid you welcome to our embryo city by the sea. It is useless to say that I hope for you not only to be profited by this session, but that you shall have this in after years to look back to as a gala day and say to yourselves that you enjoyed it well.

You represent one of the oldest professions in the world, and, I believe, one of the greatest and noblest. Notwithstanding the fact that you do represent this, you are among the last to organize to protect yourselves against internal and external foes. You have organized and have already accomplished great

good in North Carolina. There are men in North Carolina who have had for their diplomas sheepskins for which they paid as low as \$10, and there are some cities in North Carolina where men are practicing by paying the Clerk of the Supreme Court \$10 and swearing that they practiced so many years ago. You cannot do any better than to protect yourselves in this manner, and I hope and pray that you will have success in your deliberations and will accomplish much good in the State of North Carolina.

We have been called the Rip Van Winkle of the United States, and especially of this part of the State it is said that we are fifty years behind the other part of the State. When I see some of the improvements made in Northern States, I thank God that we are fifty years behind, and I sometimes wish that we were one hundred.

You will find us primitive in a great many ways, but we will give you a cordial welcome. If there is any profession that has a warm place in my heart it is that of the physician, the general practitioner, the country doctor. My father was one of these. He graduated at the University of New York and practiced medicine here until he died. My uncle would have been one of your profession; so would I had my father permitted. I honor your profession. It has made for itself a history that will never die, that has always been characterized by one of the greatest virtues of the human race, and that is humility. You have gone foremost wherever danger and disease lurked, you have let the world acknowledge your ability and never claimed it for yourself. You have not only sought out ways to promote health, but you have sought out ways so that death might be easier when it did come. There is a legend that death was at one time so that it could not come into the world and that your profession was the first to find it. It is said that there was a German woman living in a German province who had a couple of apple trees, and the boys used to come and rob them on Saturday nights. One night there was a visitor came and knocked at the door and asked for admittance. She gave it kindly and entertained an angel unawares. In the morning the angel said to her to make any request she desired and it would be granted. She asked the angel that anybody who

would go into her apple tree should not have the power to get down. The next Saturday the boys came down and robbed the trees. When they got up she had them there, they could not get down and she would not let them down until they promised that they would not rob the trees any more. Time came on, her hair was sprinkled with gray and death came and knocked at her door. The old lady wanted to know, "Who's there"? "Death"! "I am not ready for you." "I can't help it." "Death, won't you please go out and get in the apple tree and wait till I get ready and get my hair fixed"? "Oh yes, madame." So he went up the apple tree and could not get down, and there was no death. Men sought to be killed in war and by poison, but there was no death. They searched for death everywhere, and finally a medical practitioner found Death and tried to put him down. Notice was sent to the King, and the old lady said she would never permit death to come down from that apple tree, that she was perfectly willing for him to go to anyone else, but she wanted him to keep his hands off of her. So death came down from the tree, and that is why he is in the world to-day.

History tells us that Napoleon in Egypt, after capturing the people to keep them from fighting, he sent for his surgeon and said: "I want you to poison these men." I can see the grand look in his face as he said: "Sire, my mission is to cure and not to kill," and he would not kill them. Napoleon took the men and shot every one of them, and that was the beginning of his own downfall.

You have always been foremost when disease came, and you doctors go to it while all other men run away as fast as they can. There are some younger members who are just starting out, but most of you are older men. I want to say to the young men that it has been said if you look at the stars you will fall in the ditch; but let me say you will never get any higher than you aim, and no man should start without an ideal. I do not care what it may be, it will crumble and decay in your hands, you will find, unless you take one ideal, and that is the Great Physician, Christ Himself. Take Him for your pattern, and you may go on and add perfection to perfection to your qualifications, never reaching, but becoming more like Him.

Now, again, Mr. Chairman, in behalf of our people, I bid you a cordial welcome to our town.

Dr. H. A. Royster made the following

RESPONSE TO THE ADDRESS OF WELCOME.

I have always cherished a pardonable pride in wishing to be thought well of by my friends. I am going to do something this morning, which will, I think, make me extremely popular, for the time, that is, I am going to make a short speech. Worthier lips than mine might have been chosen to frame a reply to the very warm welcome we have received. While I acknowledge that there are several things I can do, I must just as cheerfully confess that there are several I cannot do—one of which is speech-making. I will not mention those things I can do for fear of wearying you.

General Grant used to say that there were only two tunes he knew—one was Yankee Doodle, the other wasn't. I hope, at any rate, that on this occasion I may be spared the fate of a certain Philadelphia politician who went to Chicago to deliver an after-dinner speech. He talked about an hour, and on returning home and being asked by his wife as to his night's success, said: "I did very well, so well that when I sat down they told me it was the best thing I ever did."

But I assure you, my friends of Morehead, that, however feeble these mere words of mine may be, we all feel welcome. If there is any lack of enthusiasm in this response you may lay it to the diffidence of the one who addresses you—one of the youngest members of the Society, both in years and experience. This might have been averted had some older Fellow been selected in my stead. We are, indeed, glad to be here. It is a pleasure to us to come together for the first time at Morehead City, the delightful seaside resort of our State, and the place where so many notable gatherings of our people are held. Everything is favorable for a pleasant, as well as a profitable, meeting. If we indulge more in fishing, sailing and eating, than in dry, musty discussions of medical theories, it will be because the allurements here prove too much for our human souls. My friend, Dr. Blacknall, will be responsible.

Allow me to say that we gratefully appreciate the warm welcome extended through your worthy representative, and we shall try to show it by enjoying to the fullest your bountiful hospitality.

The Society was then called to order for transaction of business by President Murphy.

The roll was called by the Secretary. Members present will be indicated in alphabetical list of members.

The next order of business was the

PRESIDENT'S ADDRESS.

Gentlemen of the Medical Society of the State of North Carolina:

It was with many misgivings and fears that I accepted the office of President of your body, composed as it is of eminent and learned men. The responsibilities would have been felt too great had I not known how lenient you would be to any shortcomings on my part and how willingly each and all of you would extend any help I might need.

I must ask your aid in conducting this meeting which I trust will prove pleasant and profitable to us all.

It has been customary for some years that your President draw attention to anything amiss in Society affairs or with the profession and its concerns throughout the State, that he point out what he conceives to be the best interests of this body and its members.

Following this precedent I shall leave to your wisdom the use of such remedies as may suggest themselves or the adoption of such resolutions as the conditions may demand. The only matter I have been called upon to decide was a disagreement among the members of the committee on Publication—the majority claiming the right to publish the transactions of the Society in a manner different from that desired by the minority. The minority, with the Secretary held that the N. C. Medical Journal as the organ of the Society should print the transactions as has been done heretofore.

The constitution does not define the duties of this Committee, merely saying the Secretary shall place the proceedings of the

Society in the hands of the Publication Committee within thirty days after the adjournment of the Society.

The Journal is the official organ of the Society; but whether its Editor had the exclusive control of the transactions or whether, as the majority of the committee claimed, the exclusive rights of publication pertain only to the papers read before the Society is a question for you to decide. It is a matter of importance and should have your attention.

I have a communication from the Medical Society of Bernalillo county New Mexico asking our cooperation with the American Climatological Association in obtaining tabulated statements of the U. S. Weather Bureau data with reference to their bearing on the the treatment of disease. In view of the fact that North Carolina has so many health resorts, due in great measure to its climate, it might be wise for the Society to give its aid in this matter. I append the communication to this address for the use of such as may take an interest in the question.

HISTORY OF THE SOCIETY

In reading over the addresses of my distinguished predecessors, I was profoundly impressed by the one delivered at Concord in 1885 by the late Dr. Thomas F. Wood. It is a paper showing great research and much learning. I commend it to those of you, who have never read it, or did not hear it and I assure its readers that it is well worth a reperusal. I copy a foot note from this address as giving an interesting item of history known, I venture to say, to but a limited number of your body.

"The earliest notice of a Medical Society in North Carolina" says the note, "is that mentioned in the *Medical Repository*, of New York Vol. 4. page 202, A. D. 1800. It is possible that the Society had an existence for some time prior. A mention is made of it in Joseph Pignatius, a rare book."

I quote further from the body of the address. "For eighty-two years, with probably a short interval, there has been an organized effort in some degree of activity among our medical men. Most of their literary work has perished with the newspapers to which they were contributed; but the influence of that work still lives, still urges us on to more valuable acquire-

ments." It has been said of North Carolinians, and in fact it may be said of the whole South, that they make history but their sons do not write it.

It is well worthy of remark that the information that there was a Medical Society in this State in the last Century should come from a publication in another State. Our Society has been the pioneer in much medical reform, her members have accomplished some splendid work, the memory of which will soon perish forever unless the solemn duty imposed on you as a body of representative medical men to preserve and perpetuate the deeds of our departed great men be fittingly and fully discharged. I urge that this sacred task be no longer delayed.

Those who are not proud of their ancestry will never do any thing to make their descendants proud of them.

The papers written by the men to whom I refer are scattered through old Society transactions and forgotten Medical Journals, and in some instances, it seems in newspapers. Even the fact of the death of some of the most distinguished among them has escaped mention by the Committee on Necrology. We of the younger generation are reaping the fruits of their labors. Can we do less than preserve their memories in a history of this Society and its great men?

I see before me men grown grey in their great calling, men who have done deeds worthy of heroes, not only upon the battlefield and amid pestilence and at the bed side but in recording their experience in many well written papers. Soon these too will pass away and with them much of the recollection of the grand achievements of our dead brethren.

To do well this work will require great labor, time and pains; but I am sure we have men competent to do the required work well and who will make this a labor of love. Let us at the least gather together all the records we have and preserve them in some less perishable form than they now exist. There are I believe, only two complete sets of our transactions now extant. Not even in our State Library can one be found.

BOARD OF HEALTH.

This great reform to which the late Dr. Thomas F. Wood devoted so much of his time as well as his private means con-

tinues to advance. The yearly health conferences have a tendency to interest the general public in a subject, which concerns them much more nearly than it does us. It may be well questioned how far we as medical men are to go in preventing disease from the treatment of which we gain our daily bread. The public takes our gratuitous labor as a matter of course while forgetting that we are working for their good alone.

Already in Paris the revenues of the profession have been materially lessened by the improved sanitation brought about by the physicians.

The public are scarcely interested in this work for them and look on it as some fad of the doctors whereby they receive the profit and the glory. I grant the glory, but not the profit. Shall we continue this labor received so ungratefully and apathetically? Perhaps we owe society that much and will continue as we have begun, but there is a limit even to a doctor's temper and labor. The Board of Health during the past year took a new departure which cannot fail to be of the greatest benefit if properly encouraged and persisted in.

They have addressed themselves to the study of the defective classes of the State. There is no field of labor more worthy of attention from the physician and the Legislator.

North Carolina in 1890 with a total population of one million seven hundred thousand had 1725 insane, 3617 feeble minded, 1107 deaf and dumb, 1592 blind.

Of habitual criminals in our State there is no reliable record, but the number is large. For the care of the insane the yearly expenditure is nearly \$225,000 not including that spent by counties in poor houses and jails, for the deaf and dumb and blind nearly \$125,000, while for the care of the feeble minded there is no appropriation whatever by the State, yet we all know large sums are required for their maintenance constituting as they do a serious drain upon our resources and diminishing thereby the wealth of the community. It is possible that by proper Legislation and knowledge, insanity, idiocy, deaf mutism and blindness may be in some measure prevented thus saving untold suffering and much money.

It is well known that alcoholism and the use of other narcotics by the parent is a large factor in producing insanity and

idiocy in the offspring. Perhaps 4 per cent. for each class arising from these causes is not too high an estimate. I have no statistics with reference to the production of criminals from these causes, but from my general knowledge of the subject I think the percentage as high as in the cases before mentioned. Much may be done by the Board on the lines mapped out by them in regard to this subject.

CONSANGUINEOUS AND OTHER MARRIAGES.

The profession has discussed at one time or other the results of consanguineous marriage. At the State Hospital at Morganton careful collation has been made of the statistics relating to this interesting subject with the result of showing that insanity and idiocy do not come from this source. Other observers confirm this. Perfectly healthy cousins are as likely to have healthy children as perfectly healthy persons who are not akin. As there are, however, but few healthy families, it is safer to discourage these marriages. There is a deep public prejudice against such unions, and my observation has been that such prejudices are generally well founded.

The marriage of defectives is to be strenuously and systematically discouraged, if we at all consider the welfare of the coming generations who are to preserve our civilization and manhood. Unfortunately for our work in this field, it is a well known fact that persons of nervous disposition attract each other. A careful search of all sources of information regarding the causes of insanity at the Morganton Hospital show that not less than 50 per cent. of the patients have insane ancestors, either direct or collateral.

In North Carolina, where there is comparatively little immigration, a rich and easily worked field is accessible for investigation on this subject, which affects so vitally the future manhood of the State. The children of drunkards, of imbeciles, of those with insane tendencies, of epileptics, of criminals, fill our charitable institutions and prisons.

In a recent paper read by Sir Frederick Bateman, M.D., before the Medico-Legal Society, on "Factors in the Genesis of Nerve Disease and Degeneration of the Race," I draw much

material on this subject. I shall quote largely from that paper.

EDUCATIONAL OVER-PRESSURE.

This is a well-worn theme, and yet results are so disastrous that its lessons cannot be too often repeated or too strongly urged. It is a common sight in our hospitals for the insane to see young people there from this cause. At the Morganton Hospital there are two from the same school. I am afraid the fact is overlooked that physical health is a necessity to obtain an education; certainly the system of cramming—in vogue in some places—is ruinous to the weak and unstable brain.

THE NEW WOMAN.

"I am quite aware," says Sir Frederick Bateman, "that I am treading on dangerous and delicate ground, but although I would not discourage the highest aspiration of women, whether of an intellectual, social or æsthetic character, I must think a word of caution is necessary against over-pressure of the present day." "As soon," says Dr. Seguin, "as women assumed the anxieties pertaining to both sexes, they gave birth to children whose like had hardly been met with thirty years ago."

"Sir J. C. Brown, in his oration on "Sex in Education," says: "To throw women in competition with men, is to insure to them a largely increased liberality to organic nervous disease. Woe betide the generation that springs from mothers among whom gross nervous degeneration abounds." He claims that there are organic cerebral differences between men and women, and that they ought to be educated in different ways, being destined to play different parts in the sphere of life.

"There can be no question of superiority or inferiority," says he, "any more than there can be between a telescope and a microscope; but they are differentiated from each other in structure and function, and fitted to do different kinds of work in the world." He maintains that the weight of the brain is less in women than in men, that the specific gravity of the

grey matter is less, that the distribution of the blood varies in the two sexes to a considerable extent, and that the blood going to the female brain is somewhat poorer in quality than that going to the male brain, and contains four millions and a half corpuscles to the cubic millimetre, instead of five millions, in the case of the male.

Another authority asserts that the cerebellum in women is relatively larger than in men, as compared with the cerebrum.

Mrs. Garrett Anderson and others controvert these opinions of Sir J. C. Brown. She says: "All I would venture to say is, that if it could be proved that an average man differs from an average woman as much as Newton from a Cretin, it would still be well to give the Cretin all the training which he was capable of receiving. . . . When we hear it said that women will cease to be womanly if they enter professions or occasionally vote in parliamentary elections, we think that those who conjure up these terrors should try to understand women better, and should rid themselves of the habit of being frightened about nothing."

It seems that one of her own sex is of a different opinion to Mrs. Anderson, as in a series of articles in the "Nineteenth Century" for 1891 and 1892, Mrs. Lynn Linton strongly deprecates any departure from the comparatively restricted area of usefulness hitherto open to women, and she even boldly states that it is for maternity that women primarily exist. She also adds: "Be it pleasant or unpleasant, it is none the less an absolute truth—the *raison d'être* of woman is maternity— . . . the cradle lies across the door of the polling booth and bars the way to the Senate."

The venerable Phœbe Cozzens, after years of advocacy of female suffrage, changed her opinion upon maturer deliberation, and thought that the care of children was, after all, the proper sphere of woman.

It is not for a moment to be considered that I would in any way deprive women of the highest education and advancement; on the other hand, I believe that the proper education of the present generation of women means greater advances in the next. It is only against educational overpressure that I would

warn them and against unwomanly professions. Nothing can be more certain that mothers cannot practice law or medicine or take active parts in affairs of State and at the same time perform well the functions of wife and mother.

THE HABITUAL CRIMINAL.

Every Criminologist recognizes that there is a distinct criminal class who is absolutely hopeless so far as any reformation is concerned. Let any one view a body of convicts and mark the asymmetrical heads, deformed features, the weak bodies, and limbs, and the various stigmata of degeneration and he will be convinced that no reformatory can ever work any good to them and that there is nothing for society to do but prevent their reproduction if possible, and to protect itself against their depredations by confining them in prison.

Except for the limited work done by the Board of Charity hampered as it is by the lack of funds for any investigation, criminology so far as my knowledge goes, is an untrodden field in North Carolina and our Legislators have never recognized these facts by any official action. The Board of Health, the Board of Charity and you gentlemen of the medical profession, must move if there is anything done to protect society from these various evils which threaten its existence. What course must be taken is yet an open question. Legislators look to us for light and we cannot do better than to study these vast and important questions. Asylum and prison physicians can do much, but you must give them your moral support. Last winter a bill was introduced into the Legislature of one of the western States not only permitting but commanding the asexualization of certain feeble minded, epileptics and criminals. This course has been strongly advocated by various authorities. Without endorsing this, all of us will agree that it would be effectual so far as stopping the reproduction of these classes. It may be said that the same result may be had by sequestration. I again repeat that if any reforms on these lines ever come about it must be under your leadership. Up to now our State has been satisfied with the feeding, housing and clothing and caring for her insane and criminals because of lack of means.

If any united effort on your part is made, soon we will see educated pathologist and criminologist in every hospital and prison using the rich material now going to waste. It is to the pathological chemical laboratories the clinician looks for help. Already our sister States are moving in this direction. Shall we prove laggards in the race for greater happiness and greater advances? From us the people expect aid in such matters, let us not be called on in vain.

THE BOARD OF MEDICAL EXAMINERS,

This Board is giving renewed interest in work and is not only holding up the standard heretofore set, but making judicious and substantial progress.

The Committee on legislation did good work last winter and should be continued. The thanks of this Society and every citizen of the State is due our confrere, Dr. Abner Alexander a member of this committee also the member of the House of Representatives from Tyrrell county. No member of the House could raise his voice against our noble profession and our salutary medical and health laws without a prompt and effective reply from our loyal and competent brother member.

This Society, we are proud to think, has done much for our State and generation, there is much yet to be done and unless we progress, soon we will begin to go backwards; we cannot stand still, we must move forward or we will be mere cumberers of the ground and would richly deserve to be swept into oblivion as we assuredly would be.

In conclusion gentlemen, I want to thank you for the greatest honor ever conferred or can be conferred on me. I am fully aware of my inability to fully discharge my obligation, I can only say, I have done my best.

It was moved by Dr. Long that the exceedingly well digested and valuable address be referred to a committee of three.

The following committees were appointed:

Committee on Credentials—R. H. Speight, W. E. Headen, J. L. Nicholson.

Committee on Finance—A. J. Crowell, C. M. Poole, F. H. Holmes.

Dr. G. T. Sikes read a paper on Law vs. Justice.

Dr. Lewis stated in regard to the tax upon the physicians that our friend, Dr. Alexander, when the Revenue Bill was before the House, succeeded in having the section stricken out and inserted in place of it a tax of \$100 in each county upon spectacle peddlers. When it went to the Senate it struck out the section as it came from the House and re-inserted the tax on professional men, diminishing it one-half, and it is now \$5.00 instead of \$10.00.

Dr. J. W. White, chairman of Section on Microscopy and Pathology, read a report of his Section, which was discussed by Drs. Massie, Poole, Duffy and O'Hagan.

On motion, Dr. White's paper was referred to the Committee on Publication.

Dr. E. C. Register read a paper on The Specific Action of Quinine in Malaria. Discussed by Drs. Sikes, Royster, Crowell, O'Hagan, Burroughs, Flippin, Duffy and Robinson.

Dr. Lewis, for the committee appointed to have prepared blank certificates for registration in the various counties, reported the work accomplished, and presented a copy of the certificate. He asked what disposition was to be made of these, and, on motion, he was instructed to send them to the clerks of Superior Court in the various counties, the Treasurer to pay the carriage charges.

On motion, the Society adjourned to meet at 3:30 o'clock.

AFTERNOON SESSION.

The Society was called to order by the President.

The members being invited to participate in a sail, it was moved that the Society adjourn. The motion prevailed, and the Society adjourned to meet at 8:30 o'clock.

EVENING SESSION.

The Society was called to order by the President.

Dr. T. S. McMullan, chairman of Section on Physiology and Chemistry, read a paper entitled *The Keystone of the Medical Arts*. On motion, it was referred to the Committee on Publication with thanks.

Dr. E. G. Goodman presented a paper on *The Ideal Antipyretic*. Moved and carried that the paper be referred, with thanks, to the Committee on Publication.

Next on the programme was a paper by Dr. Albert Anderson, entitled *Antitoxin in the Treatment of Diphtheria*.

Dr. J. M. Flippin opened the Annual Discussion by reading a paper entitled *Diphtheria Antitoxin*. The discussion was participated in by Drs. Anderson, Robinson and Poole.

Dr. R. D. Jewett, in the absence of Dr. Young, presented the report of the Obituary Committee.

On motion, the report was adopted.

The Society then adjourned to meet to-morrow morning at 9:30 o'clock.

SECOND DAY—MORNING SESSION.

The Society was called to order by the President.

The Finance Committee presented the following report, which was adopted:

Your Committee on Finance, having examined the books and accounts of the Treasurer, beg leave to report the following:

Balance on hand 12th May, 1896.....	\$365 59
Amount collected.....	757 00
Expended as per vouchers, etc.....	826 24
Balance on hand.....	296 35

We recommend the usual assessment of \$2.00 per capita; that the salary of the Secretary be \$125, and that of the Treasurer \$100 for the ensuing year.

C. M. POOLE,
F. H. HOLMES,
A. J. CROWELL,
Committee on Finance.

The President appointed the following Nominating Committee: Drs. H. H. Harris, Willis Alston, J. A. Stevens, C. H. Lewis and W. H. Nicholson.

A paper on *The Microscope in the Diagnosis of Malaria* was read by Dr. R. H. Whitehead. Discussed by Drs. Hines and Anderson.

A motion was adopted that the papers on Surgery be read and discussed at once, as it would save time.

Dr. John C. Rodman, chairman of Section on Surgery, read a paper entitled When to Operate.

Dr. A. J. Crowell presented a paper on An Interesting Case of Appendicitis.

Dr. James M. Parrott read a paper on The Surgical Treatment of Hemorrhoids.

Dr. W. L. Robinson, of Danville, read by invitation an interesting paper on a new treatment for cancer of the uterus.

The discussion on surgery was participated in by Drs. Hines, Weaver, Hodges, O'Hagan, Massie and others.

The special hour having arrived, the Conjoint Session of the Board of Health was called to order by Dr. G. G. Thomas, President of the Board.

The reports of the President and Secretary were made, and, on motion, adopted.

Adjourned to meet at 3 :00 o'clock.

AFTERNOON SESSION.

The Society was called to order by the President.

The Committee on Nominations offered the following report, which was adopted.

Orator—Albert Anderson, Wilson

Essayist—H. A. Royster, Raleigh.

Leader of Debate—J. A. Burroughs, Asheville.

Board of Censors—W. O. McDowell, H. H. Harris, J. H. Tucker.

Publication Committee—R. J. Brevard, E. C. Register, R. D. Jewett, G. G. Thomas.

Legislation—R. H. Lewis, G. T. Sikes, Abner Alexander, James McKee, L. G. Picôt.

Duffy Prize—John Whitehead, W. P. Beal, Oscar McMullen.

Obituary—G. W. Long, J. A. Regan, Kemp P. Battle.

American Public Health Association—W. J. Lumsden, Chas. Duffy, H. T. Bahnson.

North Carolina Pharmaceutical Association—J. W. McGee, Jr., J. R. Wheelless, J. M. Flippin.

Delegates to American Medical Association—J. H. Tucker, C. J. O'Hagan, Frank Duffy, Willis Alston, J. W. Long, H. T.

Bahnson, S. W. Battle, J. W. McNeil, P. E. Hines, E. C. Laird.
Delegates to the South Carolina Medical Association—C. M. Poole, W. A. Graham, W. T. Pate, W. D. McMillan, J. P. Monroe, J. B. Shamberger, J. R. Schenk.

Delegates to the Virginia Medical Association—W. T. Cheatham, F. H. Holmes, Oscar McMullen, G. A. Foote, J. M. Boyette, T. L. Booth.

Delegates to the Southern Surgical and Gynecological Association—W. H. Whitehead, D. A. Stanton, A. W. Knox, H. S. Lott.

Delegate to the International Medical Congress at Moscow—Dr. Anna M. Gove.

H. H. HARRIS,
WILLIS ALSTON,
C. H. LEWIS,
W. H. NICHOLSON,
J. A. STEVENS.
Committee.

The Committee on President's Address made the following report: We find that at the meeting of the Society in Charlotte, in 1887, that it adopted the following resolution, to wit: "That the North Carolina Medical Journal be declared the official organ of the Society, and that its editors be ex-officio members of the Committee on Publication." Our opinion of this resolution, however, is that it does not give the organ the exclusive right to print the volumes of transactions unless terms satisfactory can be agreed on with the Committee on Publication. We recommend further that the President appoint a committee composed of Dr. W. J. Jones, chairman; Dr. Richard H. Dillard, Dr. Hubert Royster, Dr. Wm. A. Graham, Dr. C. M. Poole and Dr. W. O. McDowell, to be styled the Historical Committee of the North Carolina Medical Society, whose duty it shall be to collect data bearing upon the lives and labors of the State's worthy physicians, in order that their distinguished services may not be lost to posterity. We further recommend that the Legislative Committee call the attention of our Legislature to the great burden imposed upon our State in the form of insanity and criminals by the intermarriage of idiots, and we further suggest, as a suitable and safe remedy, that the State erect a comfortable home for this unfortunate class of humanity, thus preventing the transmission of their misfortune to posterity.

On motion, the report was adopted.

The hour for the election of officers having arrived, the name of Dr. Francis Duffy was put in nomination for President. On

motion, the Secretary was instructed to cast the vote of the Society for Dr. Duffy.

The following Vice-Presidents were nominated: E. C. Register, 1st; J. B. H. Knight, 2d; A. T. Cotten, 3d; F. H. Russell, 4th; and, on motion, the Secretary was instructed to cast the vote of the Society for them.

Nominations for Secretary being in order, Dr. R. D. Jewett was nominated, and the Treasurer was instructed to cast the vote of the Society for him.

Dr. M. P. Perry was nominated for Treasurer, and there being no further nominations, the Secretary cast the vote of the Society, and he was declared elected.

EVENING SESSION.

The Society was called to order at 8:30 o'clock.

The Committee on President's Address desired to amend the report on President's Message, by adding the names of Drs. W. O. McDowell, of Scotland Neck, and W. J. Jones, of Goldsboro, the latter as chairman, and further recommended that this Committee be allowed stationary and postage stamps. The amendment was carried.

The Annual Oration was delivered by Dr. Charles J. O'H. Laughinghouse, on A Few Hints on Medico-Social Ethics.

Moved that the Oration of Dr. Laughinghouse be referred to the Committee on Publication with the earnest thanks of the Society.

Moved that, because of the absence of J. B. Powers, the Annual Essay be read by title and referred to the Committee on Publication. Motion carried.

On motion, the Society adjourned to meet next morning at 9:30 o'clock.

THIRD DAY—MORNING SESSION.

The Society was called to order by the President.

Dr. H. A. Royster read a paper on Practical Results in the Diagnosis of Continued Fevers from Examination of the Blood.

Discussed by Drs. Duffy, Parrott, Murphy, Booth, Crowell and Hayes.

Dr. J. B. H. Knight presented a paper on A New Treatment of Hydrophobia—Report of a Case—Recovery. Discussed by Drs. Hayes and O'Hagan.

Dr. Montgomery not being present, on motion, his paper on Modern Obstetrics was read by title and referred to the Committee on Publication.

Dr. J. Steven Brown and Dr. Annie L. Alexander not being present, it was moved and carried that their papers be read by title and referred to the Committee on Publication.

The Board of Censors made the following reply to the question asked in the morning session.

The following question has been submitted for answer to the Board of Censors: "Is it a violation of membership to dispense a private formula to the general public through druggists and others, the formula printed on package?"

In reply the Board of Censors decide that, if the exact formula and character of cases in which it has been found useful be published on each package, such a case, not being in conflict with the Code of Ethics of the American Medical Association nor the Code of Ethics of the North Carolina Medical Society, is not in violation of the Constitution of the North Carolina Medical Society.

(Signed)

W. O. McDOWELL,
H. H. HARRIS,
J. H. TUCKER.
Board Censors.

The only thing in the case we can find bearing upon the subject is found in Article I., Section 5.

With regard to this decision, the gentleman is a physician so far as the work of the practice of medicine goes, but he has not practiced medicine for a series of years. During the period in which he was practicing medicine he prepared this formula. He had the medicine prepared and sold it through a druggist. He now has a call from customers who desire this combination. He desires also to make himself a member of the Medical Society of North Carolina. He cannot do so until this question is decided. The Board has done the best that it can.

It was moved that the report be adopted.

Dr. Haigh: Does the gentleman propose to sell this medicine? (Answered yes.) Then "Cæsar's wife should be above suspicion."

Dr. Duffy: If I understand the matter, he is to give the entire formula and also place upon each package the cases for which he has found this particular combination useful. It is done to supply a trade which was built up several years ago. He does not propose to use it, but to give it as anybody would give a contribution to the profession. I think he is above suspicion.

Dr. Jones: It seems to me that it is the most valuable advertising I know of. The man puts a label as long as your arm on the bottle, and tells that this medicine is good for all cases of dysmenorrhea, leucorrhea, hemorrhoids, croup, or something of that kind, and after a while he will have a list of the remedies. Isn't that advertising? It is in bold relief on every package. You condemn a man for using secret nostrums, but this is worse than that, and while it may be that the Constitution of the Medical Society does not directly contravene this thing, it is a violation, it seems to me.

Dr. Weaver: It seems, sir, in the language of Dr. Jones, that this is the highest species of advertising. It is equal in every respect to Wampole's Cod Liver Oil and Parke, Davis & Co's *Pinus Canadensis*. Without further remarks, I shall submit Section 4 of Article I. of the Code of Ethics. If that does not complete the case, I can't read between the lines, and I for one oppose the report of the Board of Censors.

Dr. McDowell: I want the Society to understand that the Board of Censors, in making this report, have not endeavored in any way to commit themselves as favorable to public advertising by public formula. It was simply a question of whether or not this was a violation of the Constitution of the North Carolina Medical Society, and does it or does it not debar a man from membership? It seems to me that legally it cannot do it. There is not a man in this house to-day that does not use canadensis in his practice, or Fellows Hypophosphites, or some of the hundreds of other compounds of that kind. Preparations gotten up with an exclusive formula are used by every man in this Society to-day. I do not advocate it. Never would

I do such a thing. When it comes to be a mere matter of dollars and cents in a thing like that, I shall simply withdraw my name from the Medical Society of North Carolina. I do not advocate it at all, gentlemen of the Society, but how under the letter of the law we can avoid allowing this, I cannot see. If Cæsar's wife is above suspicion, why is she carrying on this?

Dr. Jones: It seems to me that there is a very broad suspicion between manufacturing chemists and practicing physicians. We admit that we have used the proprietary remedies, as they are great auxiliaries and helpers, and, gentlemen, we also admit that they have been a great snare to our feet. If you open the gate now, no telling how many will get in. We get careless, and don't do as we should. You all know that is true. A man says, "I will make a prescription and put a label on it as long as my arm and let it go." That is veritable advertising. With all respect to the action taken by the Board, I think the sense of this Society is not to accept the report.

Dr. O'Hagan: Suppose Mr. McArthur would come and ask to be a member, would he be received?

Dr. Jewett: I offer as a substitute for the report the following resolution:

Resolved, That it is inconsistent with membership in the Medical Society of the State of North Carolina to be interested, directly or indirectly, in the sale to the laity of any preparation where the laity are expected to diagnose the diseases for which the remedy is recommended.

Dr. Haigh: My little remark was criticized, and, though I must hold back that we do use these remedies, I am above suspicion in regard to patent medicines. I never use McArthur's Hypophosphites; I never use Fellows Hypophosphites; I never use antikamnia, which I reckon very few men in this country or in Europe can say, though I know what antikamnia is. I have my hypophosphites prepared in Fayetteville, and I try to have my own prescriptions compounded, so that I am invulnerable on that point. But I do feel this, that it is no argument to say that because we are not doing our duty, that therefore we ought to take into our Society a man who is not doing his before he comes in. We do not want any more black sheep in.

On motion, the substitute was unanimously adopted.

Communications were read by the Secretary from Drs. J. H. Way, R. H. Winbourne and J. B. Powers.

Moved by Dr. Hodges that the Secretary be instructed to send the greetings of the Society to Dr. Winbourne.

On motion, the Society proceeded with the installation of officers.

Drs. O'Hagan and Hodges were appointed to escort the new President to the Chair.

Dr. Murphy said: Gentlemen, I present to you my worthy successor. I hope you will be as lenient and kind to him as you have been to me. I thank you sincerely for the help you have given me, for this is the first meeting I have ever presided over.

In reply Dr. Duffy said: Gentlemen of the Society, I must say that it is with considerable diffidence that I accept this trust which you have done me the honor to place in my hands. I feel that I am very little acquainted with parliamentary usage, and so likely to be embarrassed in these respects in presiding over this body, that I must ask your indulgence; yet I know I am in the house of my friends, and I do not expect any harsh criticisms. I shall promise to do my best, and that is all I can do. Again I thank you for the honor.

The President announced the following Chairmen of Sections:

Pathology and Microscopy—Dr. W. T. Pate.

Practice of Medicine—Dr. M. H. Fletcher.

Anatomy and Surgery—Dr. J. M. Parrott.

Materia Medica and Therapeutics—Dr. A. J. Crowell.

Medical Jurisprudence and State Medicine—Dr. J. S. Brown.

Obstetrics—Dr. W. G. Stafford.

Chemistry and Physiology—Dr. J. G. Blount.

Gynecology—Dr. R. S. Primrose.

Moved and seconded that a vote of thanks be tendered the people of Morehead City and the Proprietor of the Atlantic Hotel, Dr. Blacknall, for the kindness and hospitality to the members of the Society. The motion was carried.

The following were favorably reported by the Committee on Credentials:

Dr. F. M. Clarke, Beaufort; Dr. H. S. Baird, Asheville; Dr. R. S. Primrose, Newbern; Dr. Clara E. Jones, Goldsboro;

Dr. G. A. Coggeshall, Oxford; Dr. Charles J. Sawyer, Belcross; Dr. E. A. Moye, Greenville; Dr. B. K. Hayes, Oxford; Dr. J. W. Duguid, Dover; Dr. J. H. Pool, South Mills; Dr. Thomas F. Costner, Lincolnton.

On motion, the Society adjourned to meet in Charlotte next May.

ANNUAL ORATION.

A FEW HINTS IN MEDICO-SOCIAL ETHICS.*

IT is my pleasant duty, first of all to thank this Society for the honor conferred in selecting me their annual orator. Like all honors it has to be dearly paid for. The busy life of a practitioner leaves little time for speech making, that belongs to another craft; and when we would assay to climb the dizzy heights where the silver tongued orator walks serene, it means that the mountain must first be in labor, and it often brings forth nothing but a mouse. I realize deeply the responsibility, the opportunity and the limitations of this occasion; and while the gentle breezes from Morehead, "nature's greatest sanitarium", kiss your cheek, and drive away all anxious care, I shall attempt to present, neither a learned oration nor a technical address.

It is my purpose to be entirely practical, and lay before the laity as well as the profession, a few hints on medico-social ethics.

My reason for selecting such a subject, is due to the fact, that the medical profession and the laity, have many interests in common, which on account of silence on the physician's part, and a consequent lack of information among the laity, are being sorely neglected.

Since the day when I first realized what it was to be a member of the medical profession, I have longed to witness a time when the profession and the general public should join hands

*Delivered before the N. C. Med. Society by Chas. O'Hagan Laughinghouse, M.D., Greenville, N. C.

in an ethical compact that would result in a further advancement of practical medical science, thereby advancing humanity as a whole. There are many glaring faults we might correct could we but catch the public ear.

That day has passed when medicine was considered so full of mysticism and superstition that no one outside the profession could realize and understand its practical application. That it is a science is no longer the mooted question of even a few years ago. The persevering research of medical men have made diagnosis and treatment of disease so exact that there are but few who deny the scientific aspect medicine has acquired, and that it is still advancing with great rapidity cannot be denied.

Take the best work on Pathology, General Medicine, Surgery or Therapeutics written ten years ago and compare them with authorities of to-day and one is astonished to see how much is old and seemingly outgrown. The stupendous discoveries and advances made from day to day cause medical books of 1890 to seem like history rather than present day conclusions.

No other branch of science has advanced so rapidly and under so many difficulties as medicine. No new scientific fad has aroused such great hopes and none has so superbly gratified some of them as that of the disease producing influence of minute organisms, called bacteria. Their influence as causes of disease is now established beyond controversy and to this discovery is due the revolutionizing of surgery, the extinction of surgical and puerperal fever and the prevention of contagious diseases by serum therapy. Every department of medicine has been electrified by the partial success and perfect promises which this discovery holds out to mankind. In the same, though perhaps in a less striking way, a noteworthy advance has been made all along the line. There is now no subject of medical study that does not bear witness to the spirit of accurate and exhaustive research which characterizes our age.

Simply to enumerate the glowing incidents of advance would require a volume, the brightest and most blessed pages of which would be those dedicated to Preventive Medicine.

The physicians of the world, as a body, are laboring for the public good with a zeal and an intelligence combined with an

unselfishness which no other profession, occupation, trade or calling can even hope to rival.

Humanity at large could study with much profit the etiquette and advance of medicine. When they realize that medical men are tirelessly seeking by hygiene and preventive medicine to render their own calling useless and superfluous and themselves occupationless; when they realize that all over the world every true physician, whenever asked, gives his services to the poor without demand or thought or even hope of compensation; when they realize that it is a medical tradition that the disciples of this profession must gladly renounce the usual ideals and commercial methods and devote themselves to the Healing Art imbued with the determination to follow it for the good of humanity more than for the good of themselves, when they realize that the entire tremendous labor for the benefit of the poor of keeping up the enormous hospital work of all the great cities is borne by physicians without a cent of pay, when these things are realized, I say, the public will appreciate more thoroughly than they now do, the great usefulness and self-sacrifice of medical men. Then the ignorant misconception, the non-recognition of an opposition to the true work and worth of modern medical science will be superseded by a new order of things that cannot fail to place the medical profession in the front ranks of those who toil to bless their fellow man.

The public will aid us when we teach them why they should and how they can assist in correcting many evils that are stalking about doing damage to our land to-day. For example; the hygiene of female schools. Boys schools are bad enough, but they suffer so much *less* that they can go on unmolested until we can succeed in doing something for their sisters.

How many of you are there who have seen young girls strong, well and healthy leave home for college and come back weak, nervous, chlorotic, in fact, wrecked in body and in mind to such an extent that they can never again recover all that has been lost. Is it from hard study? No, it is from injudicious study, improper management in ways that I cannot mention here because it is a text for a volume.

What are we to do about this? The very look of these poor children is an appealing call to every thinking man and woman

urging that something be done to correct the criminal neglect of the physical well being of these innocent souls who are to be the women, wives and mothers of the future. They are carefully taught and the most stupid learn the small social laws and the criminality of violating them. Is it more important to know these things than to understand and appreciate the simple commandments which, if carefully practiced, lead to health and to a respective increase of happiness and prosperity? Would it be unwise to have in every female school a chair of Hygiene presided over by a competent instructor, who would teach them by lectures and by example the best way to live, the practical methods of prevention of disease, the art of medical cleanliness, the utmost importance of a thoughtful marriage, that their offspring might be spared the disease of heredity? The misery this will prevent, the good it will do is not to be seen in our day but the stalwart health and the intellectuality characterizing the men and women of the future will be the monument erected to bless our wisdom.

I could point out a thousand things the public ought to know, the way one sits in reading and the way a book is held may mean years of ocular suffering. Every article of dress, especially the corset has a medical significance. Why women will wear them is beyond the pale of common sense. Every man whom they think they are pleasing is only disgusted with their wasp-like waists and thoracic breathing. Without it the profession would be much out of work, yet we will hail with delight a time when the fashion formers will have made popular the Jeannette Miller styles which allow freedom of a woman's breathing apparatus and her body generally.

The food we eat, the way it is cooked and eaten is medically most important. Instead of teaching music and painting to every inmate of a female school, no matter whether talent is possessed or not, would it not be wiser to give some lessons in the culinary art to those whom in all probability would make better housekeepers than handlers of the palette and brush.

Now we come to a business, patronized by the public, which is doing more harm than all the plagues, pestilence and famine which infest our country. I refer to the patent medicine fraud. My friends, it is a disgrace to the nation. It flourishes nowhere

else as it does in these United States. Even semi-barbaric countries have forbidden the entrance within their borders of these vile concoctions of danger, ignorance and nausea, devised to strip the poor of money and to fill their bodies with poison.

What a ridiculous farce that any public credited with sense enough to vote should purchase these cure-alls containing they know not and cannot know what, compounded by whom they know not, vouched for by no one, a shot gun prescription, fired at a disease in the abstract, an unknown remedy for an unknown disease prescribed by an unknown hand.

Thinking of this death dealing evil probably evoked from the great Dr. Oliver Wendel Holmes, the witticism, "if all the medicine on earth were thrown into the sea it would be good for humanity but bad for the fish."

We medical men realize that the favoring of this crime by the public is to some extent a sin of ignorance and we pray "Father forgive them for they know not what they do." But is it not our duty to do more than pray? This a part of Preventive Medicine neglected as are a great many other sources of prevention simply because its success depends upon the public and the public has not been enlightened enough to see the necessity or know the methods of prevention.

True, the physicians can say that they have tried to protect the public from these patent medicine venders by attempts to have laws enacted against the charlatans. Laws to elevate the medical profession, thereby elevating the public generally, but the interested and combined hordes of quacks have so intimidated and bought up our measley legislators that they are too weak to vote for decency. Thus the patent medicine outrage flourishes, controls legislation, pollutes human health, poisons human bodies, while every newspaper, barn, house and fence are heralding their false and beastly advertisements, which advertisements the public read, believe and do what is asked of them, purchase.

Now what do they get in return for their cash? Some worthless, dangerous nostrum, a feeling of contempt for their blissful ignorance from the fakir or drug clerk whom they allow to persuade them into purchasing the worthless article. Is this due

to stubbornness, lack of interest or ignorance on the part of the people?

When a boy I was amused at the closing remarks of a famous patent medicine vender who termed himself, Dr. Allen. After selling a goodly number of his preparations in the public square of our town, he concluded his harangue by saying, "my friends, before bidding you good-bye, I want to say for Pitt County, that its people have more money and less sense than the inhabitants of any section of Eastern Carolina." His remarks would not be inappropriate if applied to the whole State so far as purchasing medicine is concerned.

Have we, as guardians of the public health, taken enough pains to impress upon our lay friends, the danger of allowing and encouraging this baneful patronage of patent medicine fakes. The above may also apply to the irregulars and quacks, both in the profession and out of it.

The newspapers are filled with all sorts of spurious medical advertisements bent only on getting money without knowledge, knowing nothing and caring nothing about curing. When the public sees in the papers an account of some marvellous operation performed by some sneaking advertiser in the profession or some pompous nonsense about professional matters, they flock immediately in answer to the advertisement, forgetting that the advertiser is directly in collusion with the newspaper reporter and that his opinion upon medical questions is scientifically valueless. Strange beyond all strangeness is the love of the public generally for being duped.

Quackery may be likened to an artificial eye, everybody sees through it except the patient. Should we censure or pity, should we abuse or instruct our friends outside the profession for allowing and supporting this highway medical robbery, not of the profession but of themselves? At whose doors shall we lay the cause? The public, of course, will have to bear its part but they are to some extent excused on account of ignorance. The profession is responsible to some extent for not raising its voice more powerfully against this menace to public health; but the Press, that powerful organ for good or ill, will at the final judgment, have few sins more heinous to answer for than the crime of poisoning the minds of an unsuspecting pub-

lic with what they know to be absolute lies. Papers, pamphlets and magazines, almost every sheet upon which type is pressed, is to some extent responsible for the success of these social vampires.

Even the "Biblical Recorder" and "N. C. Christian Advocate," official organs of the respective churches, for whose benefit they are said to be printed, are emblazoned with "Mother's Friend," "Pink Pills for Pale People," "Cascara Candy," "The Electropoise," etc. etc.

Our profession by patient unpaid toil has sounded to the bottom most of the ills of life and has succeeded in devising means for preventing many, but all the knowledge is but small profit to those for whom it was gained because they have not been taught how to put into practice the wonderful discoveries wrought for their benefit. Dr. Shastid suggested in the April number of the "Journal of the A. M. A., instructions of the laity through short concise yet clear and honest discussion of those subjects pertaining principally to Preventive Medicine believing that such a course will tend to beget among the laity more respect and veneration for, and will bring them closer to physicians. It will also add impetus to the movement toward a creation of a department of public health, a mile stone which all of us wish to see planted in our time.

The day has come when something must be done, we have struggled for centuries and have victory in our hands if we will but *act*. Shall we now in a fit of weariness, tinctured with cowardice, throw away all that we have gained? Our heads and hearts are long enough and strong enough to devise ways and means by which our ignorant lay friends will cease to be devoured on account of their ignorance.

If as a profession we did but devote a tithe of our collective energy to the task of teaching humanity that we had something good for them, if we did but possess even a small portion of the persistent, tenacious perseverance of these quacks whom we condemn so strenuously, we could efface from this great nation much of the public ignorance.

We could soon show the laity the danger to health in placing their hard earned dollars in the coffers of these human vampires. True, the medical profession is to a great extent shut

within itself. It has no power, means or machinery as yet for reaching the public ear. The Press, some might suggest, would help us by a determination to print only truths so far as medical advertisements are concerned, but for the paltry pay of advertising it has sacrificed its honor, its self respect, its decency and most harmful of all, its veracity, for with eyes wide open, it knowingly prints advertisements worthy the pen of Ananias.

The uneducated, thoughtless, indiscriminating classes are loaded with almanacs, circulars, fictitious certificates and false promises of quacks and nostrum-venders which impress the credulous, unsuspecting mind and fill it with plausible falsehoods. The family physician is put aside and his testimony against these frauds, if he has the manliness to denounce them, is attributed to his jealousy.

Heretofore the profession has scorned to take up arms against these social lepers. When we can warn against such direful evil, is it beneath our dignity to teach the ignorant?

There have been valuable suggestions made in current medical literature showing that general interest is being evoked on this subject. In several journals of late will be seen paragraphs taking the broad view that medicine should no longer be an occasionally useful mystery to the laity, but on the contrary a living, continuously applied help to a higher civilization.

There are advocates of public medical instruction, provided it is done in a proper way, paying special attention to practical methods of Preventive Medicines. Reacting, this instruction will beget greater respect for the physician in the every day affairs of life. It will make the practice easier and more successful, for, when taught how, we will find willing hearts and hands in the effort to save humanity as much as possible from all the ills which Preventive Medicine can blot out.

Dr. Shastid's remarks are the outcome of this thought. Why could we not here in North Carolina learn a bit from the business sagacity of the patent medicine manufacturers and issue medical almanacs, conservative, concise, non dogmatic, free from great detail, seriously, truthfully gotten up, yet popular and send them free to all? Let every County Medical Society have a medical bureau with the local physician as the local agent to instruct the people in sanitary medical questions. We

should do all in our power to get from the State a proper appropriation for its Board of Health. Legislators believe we do not care for help, and they do not give it simply because by our inactivity we have merited such an opinion.

Verily, there are a hundred medical duties we are leaving undone, which, if we did but do, medical and sanitary progress would sweep on to certain victory. As physicians, charged with the health of the present and future, our duty must be clear.

The sly cunning of advertising schemers, the tricks and frauds of medical parasites, the patent medicine disgrace, all these must be choked out of existence. The careful instruction of the people who are so woefully ignorant, medically, could we but reach their ears, how we would love to appeal to them. To legislators of a serious, honest type, if such there be, to the better class of journalists, to literary men with an eye to the public good, to teachers and rulers of colleges, to business men, to patriots and lovers of humanity, all these we would gladly have listen while we taught them something of their health, their life and their physical culture.

In these great United States hundreds and hundreds of thousands of needless deaths are annually taking place because the people will lend no helping hand to carry out the plans of prevention which have been so well established.

My lay friends, are your charlatans and quacks founding institutions of Preventive Medicine, are they trying to probe the mystery and prevent the mockery of disease? Has it been the quacks who have cared for the sick and poor and kept going the great charity hospitals which fill our land to-day? For the sake of self-protection, for the sake of your children, for the sake of civilization and humanity, for God's sake, let us turn away from the foolishness and folly of such trifling and enter at last upon the road, removing every obstacle that leads to health.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF NORTH CAROLINA.

Spring Session, 1897, Morehead City.

The Board of Medical Examiners met in annual session at Morehead City on June 7th, at 9 o'clock, p. m..

Those present were, Drs. Julian M. Baker, President; H. B. Weaver, Secretary; Thos. S. Burbank, D. T. Tayloe, Richard H. Whitehead and T. E. Anderson.

A vacancy on the Board being announced by the President, caused by the death of Dr. J. M. Hayes, and, after appropriate remarks by members of the Board on this announcement, Dr. Burbank nominated Dr. Kemp P. Battle as a member of the Board to fill the unexpired term of Dr. Hayes. There being no further nominations, on ballot it was found that Dr. Battle was unanimously elected as a member of the Board.

On motion of Dr. Weaver, a committee of three, Drs. Anderson, Burbank and Tayloe, were appointed to draft suitable resolutions of respect to the memory of Dr. Hayes, and that they be spread on the minutes of the Board.

Dr. Battle was assigned to the Chair of Chemistry. Dr. Weaver opened the examinations on Tuesday morning at 9 o'clock on Obstetrics, Gynecology and Pediatrics. Dr. Baker held his examinations on Surgery in the afternoon of the same day. The examinations were continued on Wednesday by Dr. Whitehead in Anatomy, Dr. Burbank in Practice of Medicine. On Thursday Drs. Anderson, Tayloe and Battle held their examinations on Physiology, Materia Medica, Therapeutics and Chemistry, respectively.

Dr. Weaver conducted practical demonstrations on the Manakin.

On account of inability to attend the meetings, resulting from an accident, Dr. Pendelton was granted a continuation of temporary license till next meeting.

Dr. Hiden was granted an oral examination on account of sudden illness.

There were 82 applicants, and the following were granted license:

Clarence P. Jones, Rockingham, N. C.; Sterling B. Pierce, Weldon; S. N. Harrell, Coakley; J. C. Davis, Ironoff; Wm. W. Barrett, Monroe; A. E. Bell, Charlotte; James H. Hiden, Richmond, Va.; P. C. Hutton, Goldsboro; James N. Judd, Enno; R. E. Zachary, Chapel Hill; O. J. Paris, Gath; B. T. Bitting, Mizpah; M. L. Justice, Perue; Charles L. Pearson, Asheville; A. B. Goodman, Saunders; A. D. H. Whitley, Boaz; W. J. Weaver, Asheville; A. C. Bethune, Aberdeen; James Sawyer, Asheville; Reuben A. Campbell, Statesville; J. Pinkney Turner, Cool Springs; James E. Smithwick, Jamesville; Henry T. Batts, Bayview Asylum, Baltimore, Md.; Peter John, Laurinburg; W. J. Wallis, Brevard; Charles Robenson, Chapel Hill; W. W. Dawson, Grifton; Theo. L. Northrop, Laurinburg; James S. McGeachy, Lumberton; William Isaac Hill, Morgan's Mill; J. B. Person, Jr., Freemont; L. O. Hayes, Lacuma; H. N. Bonner, Aurora; Henry F. Kinsman, Hamlet; R. D. Patterson, Liberty; S. P. Holding, Wake Forrest; J. B. Wallace, Sardis; George Kennedy, Way Cross; J. T. Hood, Fayetteville; George D. Williams, Gatesville; Jas. E. Brooks, Siler City; R. L. Savage, Hobgood; C. R. Wharton, Ruffin; G. A. Brown, Bear Poplar; R. H. McGinnis, University Hospital, Baltimore, Md.; Wm. Spicer, Goldsboro; W. V. Powell, Asheville; A. C. Everett, Laurinburg; L. N. Glenn, Crowder's Creek; R. C. Bunting, Wilmington; W. P. Webb, Rockingham; J. E. David, Asheville; John E. Hart, Monroe; Robert D. Jones, Newberne; J. O. Matthews, Taylor's Bridge; Stonewall J. Love, Long Store; F. D. Koonce, Richlands; R. E. L. Flippin, Pilot Mountain; G. A. Garen, Greensboro; L. V. Lee, Lattimore; David S. Morrell, Farmville; Allen H. Wyche, Henderson; B. R. Hunter, King's Mountain; W. H. Lippitt, Pittsboro—total, 64. Eighteen were rejected.

Dr. R. Duval Jones having made the highest general average grade (97), was awarded the Appleton prize, consisting of a set of books (\$25).

Dr. Charles Robinson, Chapel Hill, was awarded the second prize by the G. F. Harvey Co., consisting of a buggy case. Dr. Robinson was also awarded the prize in Surgery given by the William Armstrong Co., consisting of a Gerster emergency case with sterilizer.

The prize for the best examination in practice was awarded to Dr. James Sawyer, of Asheville, consisting of a set of four volumes of Hare's Therapeutics, offered by Lea, Bros. & Co., Philadelphia.

The appointment to the Wilmington City Hospital was awarded to R. E. Zachary. Also Dr. Zachary was awarded the prize consisting of a pocket case of instruments and a year's subscription to the JOURNAL for the best examination in Anatomy, given by THE NORTH CAROLINA MEDICAL JOURNAL.

At a late hour Saturday night the Board adjourned to meet in Charlotte in May, 1898.

H. B. WEAVER, M.D., Secretary.

MALIGNANT DISEASES OF THE STOMACH.

In the London *Practitioner* for February, 1897, Douglass Powell, after discussing the subject of malignant disease of the stomach, concludes his article by giving particular attention to treatment. He says: "You can do very little in the way of treatment, except of the palliative kind, in these cases. In the case of scirrhus pylorus, where there is obstruction and dilatation of the organ, you can do very much to keep your patient going by washing out the stomach, and then giving a meal of peptonized beef-tea, which it would rapidly absorb. In encephaloid disease you must be very wary how you inject fluids, because you have to deal with a soft, disintegrating mass, and you are apt to bring about perforation or hemorrhage by distending the stomach fluids. When the patient ceases to be able to take food by the stomach without very severe pain, you can still keep him free to a certain extent from the pangs of starvation by rectal feeding; and you can keep him more or less from suffering by a sufficient amount of morphia. Cancer is one of those diseases in which you are completely justified in keeping your patients under the influence of sedatives such as may be necessary to secure their freedom from suffering. A small subcutaneous injection in the forenoon and a larger one in the evening will often keep a patient comparatively happy. In cases of ulcerative cancer you will do even better by giving by the stomach small doses of morphia at frequent intervals—such quantities as one-eighth of a grain of morpine."—*Ther. Gazette.*

NORTH CAROLINA MEDICAL JOURNAL.

ROBERT D. JEWETT, M.D., EDITOR.

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This JOURNAL is published on the fifth and twentieth of each month, and any subscriber failing to receive his copy promptly, is asked to announce the fact to this office.

Cuts will be provided for any original communications (sent to this JOURNAL only) requiring illustrations, free of cost to the author.

Secretaries of County Medical Societies in the Carolinas are asked to furnish condensed reports of their meetings to the JOURNAL.

All communications, either of a literary or business nature, should be addressed to, and any remittances by P. O. Order, Draft or Registered Letter, made payable to ROBERT D. JEWETT, M.D., P. O. Drawer 825, Wilmington, N. C.

Editorial.

NOTES OF THE MOREHEAD MEETING.

The 44th annual meeting of the Medical Society of the State of North Carolina was held at Morehead on the 8th, 9th and 10th of the present month. The attendance was not more than half what is usual at these meetings, there being present only about one hundred members. This meeting evidences the lack of wisdom in carrying the Society to isolated places, and also in postponing the meeting until so late a date. The accommodation at the Atlantic Hotel was all that could be asked, and every one seemed to be well pleased. The obliging proprietor, Dr. Blacknall, did all he could to make his guests comfortable and deserves much praise for his ability to handle a crowd; for beside the Society, the North Carolina Press Association were his guests.

Notwithstanding the small attendance there were a number of excellent papers presented, and the discussions following

their reading were more than usually interesting and instructive. We must confess, however, that with a few exceptions the members present were rather on pleasure bent than business. Sailing, fishing and surf-bathing offered attractions more pleasing to the tired doctor, than did listening to the reading of papers.

The meeting of the Board of Examiners was more than usually successful. All the members of the Board were present, with the exception of Dr. Hays, deceased. The Board elected to fill the vacancy Dr. Kemp P. Battle, of Raleigh, and a wiser choice could not have been made. Dr. Battle, on being advised of his election, came at once to the meeting and conducted the examination in Chemistry. There were eighty-two applicants before the Board, the largest class that has ever presented itself. Of these sixty-four received license to practise in the State—a percentage of 78. This shows that the requirements of the State Boards are causing the colleges to send out better prepared men. A list of the successful applicants appears on another page of this issue, together with a list of those to whom were awarded the prizes. The amendment to the Constitution providing for a return to the plan of electing all seven members of the Board at one and the same time, was adopted by the Society without a dissenting vote.

The President's Address of Dr. P. L. Murphy was well received, being full of useful suggestions, which, if carried out, will work much good to the profession and to the people of the State. Most important to the profession is the recommendation that a committee be appointed to collect data for the preparation of a medical history in the State. We are pleased to see that this recommendation received the sanction of the Society and that a Committee was appointed, each member of which will accept the duty as a labor of love.

The lack of interest manifested in the election of officers the past few years, makes one think that the nomination of these officers might as well have been left to the Nominating Committee, and thus save time for the transaction of other business. The manner of conducting the elections the past four or five years has been for some member to make a nomination and the

Secretary be instructed to cast the ballot of the Society for the nominee. At the late meeting there seemed to be grave doubt that any nomination at all would be made, and President Murphy became alarmed lest he should be compelled to hold over. There was certainly no electioneering at this meeting.

The next meeting of the Society will be held in Charlotte, in May 1898, the Committee of Arrangements to name the exact date.

Therapeutic Hints.

HYPERIDROSIS.—

R. — Bals. peruvian - - - - - gr. xxiv
 Ac. formici,
 Chloral hydrat - - - - - aa 3 ij
 Alcohol - - - - - ℥ v

M. S. Apply with pledget of cotton or in generalized hyperidrosis as spray.—HEUSNER in *Med. Record*.

A CHEAP DISINFECTANT.—Nitrate of lead is the cheapest disinfectant known that fulfils its intent, but it does not, however, prevent putrefaction. Lead chloride is much more effective in every way, and may be made extemporaneously by mixing a solution of nitrate of lead (a teaspoonful to a quart of water) with a solution of common salt (two teaspoonfuls in eight quarts of water). When the sediment has settled there remains two gallons of clear fluid which is saturated solution of chloride of lead. A pound a nitrate of lead will make several gallons of the liquid, and only costs from 18 to 25 cents at retail.—*Annals of Hygiene—Med. Age.*

CHRONIC MALNUTRITION OF INFANTS.—The combination of yolk of egg and olive or cotton-seed oil made into an emulsion, is found very useful in cases of rickets or chronic malnutrition

of infants: Olive oil, two ounces; glycerin, one ounce; yolk of an egg. Add one-half minim of creosote to each drachm. A full teaspoonful of the emulsion is given three times a day after feeding. The preparation seems to be readily tolerated, even when the stomach is irritable.—*The Practitioner*.

FOR PRURITUS OF JAUNDICE.—

R.—Menthol	-	-	-	-	-	gr. xxiv
Alcohol,	{	aa	-	-	-	3 iv
Ether,						

M. Sig. For external use, apply as a spray to itching regions.—*Ex*.

Miscellaneous Items.

Forty-seven out of 97 is the percentage of successful applicants before the Maryland State Examining Board.

WANTED.—A physician to practice at Dobersville, Sampson county, N. C. It is a good locality, fine farming country, nearest doctors 10 and 12 miles. Address R. A. Jordan, Dobersville, N. C.

The Journal of the American Medical Association for June 12th publishes a list of members of the Association. North Carolina is credited with only forty-two.

The female employees of many German factories are forbidden to wear corsets during working hours.—*Boston Medical and Surgical Journal*.

A LITTLE NONSENSE NOW AND THEN, ETC.—A correspondent with etymological proclivities writes: "The ending *oma* means tumor, as in adenoma, sarcoma, etc.; the prefix *dipl* means double, as in diplacosis, diplococcus, etc.; therefore, when a graduate receives his diploma, does he get a double tumor?" To some extent, yes; usually it is a case of swelled head and general inflation.—*Med. Record*.

Dr. Charles E. Sajous, editor of the "Annual of the Universal Medical Sciences," will return to Philadelphia, having been appointed Professor of Laryngology and Dean of the Faculty of the Medico-Chirurgical College of Philadelphia.

The "Osteopathy Bill," to allow a certain class of practitioners special privileges, passed both houses of the Illinois Legislature, but was turned down by the Governor. A Governor is a good thing sometimes.

STARCH HABIT.—A case of starch-eating habit is reported in the "American Therapist." It began by picking out a lump of starch and placing it in the mouth. Starch being withheld, flour was substituted.

The following were elected by the American Medical Association: President, Dr. George M. Sternberg, Washington, D.C.; 1st Vice-President, Dr. Joseph M. Mathews, Louisville, Ky.; 2d Vice-President, Dr. J. L. Thompson, Indianapolis, Ind.; 3d Vice-President, Dr. J. W. Wiggins, New York, N. Y.; 4th Vice-President, Dr. T. J. Happel, Trenton, Tenn.; Treasurer, Dr. Henry P. Newman, Chicago, Ill.; Assistant Secretary, Dr. W. A. Jayne, Denver, Col.; Librarian, Dr. George W. Webster, Chicago, Ill.; Chairman Committee of Arrangements, Dr. J. W. Graham, Denver, Col. The next meeting will be held in Denver, Colorado.

The consolidation recently entered into by the University Medical School and Bellevue Medical School has been annulled. These rival colleges will, therefore, go on their separate ways, though their friendship has been rather strengthened than strained by their temporary intimacy.

The present issue of the *JOURNAL*, as will be seen has been devoted entirely to the proceedings of the Society at Morehead, contains four pages additional. Members will doubtless appreciate the satisfaction of reading the proceedings within two weeks of adjournment of the Society, and pardon the delay in bringing out the *JOURNAL*.

The medical profession has sustained a heavy loss in the death of two of its most distinguished members in New York, within three days of each other and both from apoplexy.

THE MIDWIFE QUESTION IN AMERICA.—Dr. C. S. Bacon read a paper on the subject before the American Medical Association, in which he said that in Germany the question of the improvement of midwives has recently attracted much attention, as also in England and France. In this country the State boards and the boards of health have made some efforts in this direction. He would not abolish midwives, but would regulate their education and registration. There are almost 900 midwives in Chicago, who attend 25,000 births in a year. A prevalent idea is that midwives educated in Europe are better than those educated here. Illinois and Missouri require a course of five-months training in obstetrics before a certificate can be issued. An efficient system of midwife control and regulation is essential; otherwise the midwives degenerate. The mortality rate from puerperal sepsis has decreased in the hands of midwives, but is still very high. No midwife can manage properly complicated cases, but they can attend normal labors. The practice of abortion has become a serious question, and it is due largely to improper supervision of midwives. He believes that midwives are needed. The State boards and the boards of health should take in hand the regulation of these women. A ten-months' course should be given in midwife school in connection with a regular school of medicine.—*Medical News*.

NECROLOGY.

Dr. William T. Lusk, aged 59 years, of apoplexy, at his home in New York, June 12, 1897.

Dr. J. Lewis Smith, aged 69 years, of apoplexy, at his home in New York, June 9, 1897.

Dr. J. C. Jordan, aged 61 years, at Richmond, Va., 21, 1897.

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ANALYSES AND REPORT BY DR. R. OGDEN DOREMUS

Professor of Chemistry in the Bellevue Hospital Medical College, New York.

NEW YORK, December 3, 1896.

*Dr. E. C. LAIRD, Resident Physician,
Buffalo Lithia Springs, Va.*

Dear Doctor :—

I have received the five collections of Disintegrated Calculi, each collection containing a number of fragments, and also the three boxes, each containing a single Calculus, mentioned in your letter as discharged by different patients while under treatment by the **BUFFALO LITHIA WATER, Spring No. 2.**

I have analyzed and photographed parts of each specimen, and designated them alphabetically.

One of Calculi from collection marked "A" was $\frac{5}{16}$ of an inch in diameter, of an orange color, and on section exhibited a nucleus surrounded by nine concentric layers of a crystalline structure. On chemical analysis it was found to consist of Uric Acid (colored by organic substances from the urine), with traces of Ammonium Urate and Calcium Oxalate. A fragment of a broken down Calculus from the same collection was found to consist of Uric Acid.

One of the fragments taken at random from the collection marked "B" which was still more disintegrated than the preceding one, proved on analysis to be composed chiefly of Uric Acid and Ammonium Urate, with a trace of Calcium Oxalate.

The contents of the boxes marked "C" consisted chiefly of whitish Crystalline materials. On microscopic examination they exhibited well defined and prismatic crystals, characteristic of "Triple Phosphate." On chemical analysis they were found to consist of Magnesium and Ammonium Phosphate (triple phosphate), Calcium Phosphate, Calcium Carbonate a trace, Sodium and Potassium Salts in traces, Uric Acid and Urates none, Calcium Oxalate none, Organic debris in considerable quantity, and matters foreign to Calculi.

The fragments of Calculi in the collection marked "D" were numerous, and of sizes varying from small fragments to $\frac{3}{8}$ inches in length, $\frac{5}{16}$ inches in width and $\frac{5}{16}$ inches in thickness. Some of the fragments were white and others were gray in color. On chemical analysis they were found to consist partly of the variety known as "Fusible Calculus," Ammonium and Magnesium Phosphate with Calcium Phosphate also, Calcium Phosphate, Calcium Carbonate in traces, Calcium Oxalate in traces, Uric Acid in traces and Organic matter.

The Calculus in collection marked "E" were nodulated and nearly spherical in shape, consisting of Crystalline layers from $\frac{3}{16}$ to $\frac{1}{4}$ of an inch in diameter. They were of a brown color, and on analysis were found to be chiefly Uric Acid, with some Ammonium Urate and traces of Organic matter.

Yours respectfully,

R. OGDEN DOREMUS.

Analyses F, G and H, omitted for lack of space.

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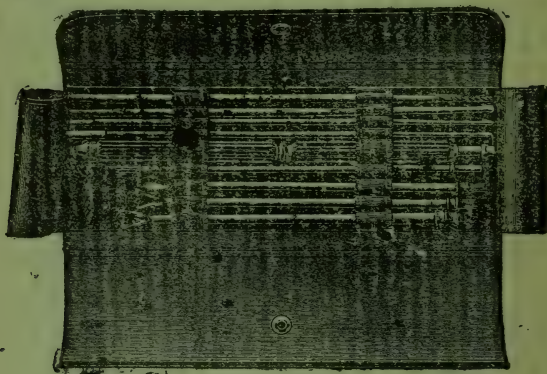
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